SANYO CEP3024D

MODEL

SERVICE MANUAL

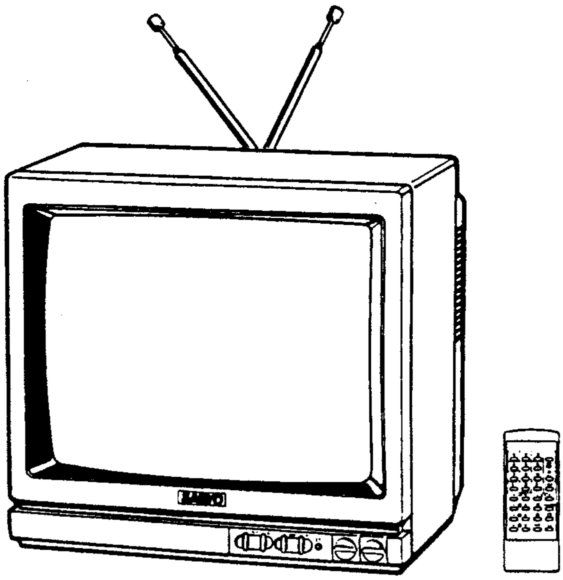
175

SANYO

MODEL NO. CEP3012D
CEP3012PSD
(West Germany)

SERVICE MANUAL Colour Television

Service Ref.No. CEP3012D-00
CEP3012PSD-00



Specifications

Power source	AC220 - 240 V,50Hz
Power consumption	36W
Television System	B/G
Colour Reception System	PAL(CEP3012D) PAL/SECAM(CEP3012PSD)
Channel Coverage	VHF:E2-E12,X,Y,Z,S1-S20 UHF:21-69
Video IF	38.9 MHz
Sound IF	33.4 MHZ
Aerial Input Impedance	75 Ω
Picture Tube	37cm(Diagonal)
Sound Output	1.5W
Dimensions	362(W)X325(H)X377(D)mm
Weight	10 Kg

Product code
113 02124(CEP3012D)
113 02138(CEP3012PSD)

Original Version
Chassis Series : A3-A14

Give complete "SERVICE REF.No." for parts order or servicing. It is shown on the rating plate at the cabinet back of the unit.

This T.V. receiver will not work properly in foreign countries where the television transmission system and power source differ from the design specifications. Refer to the specifications for the design specifications..

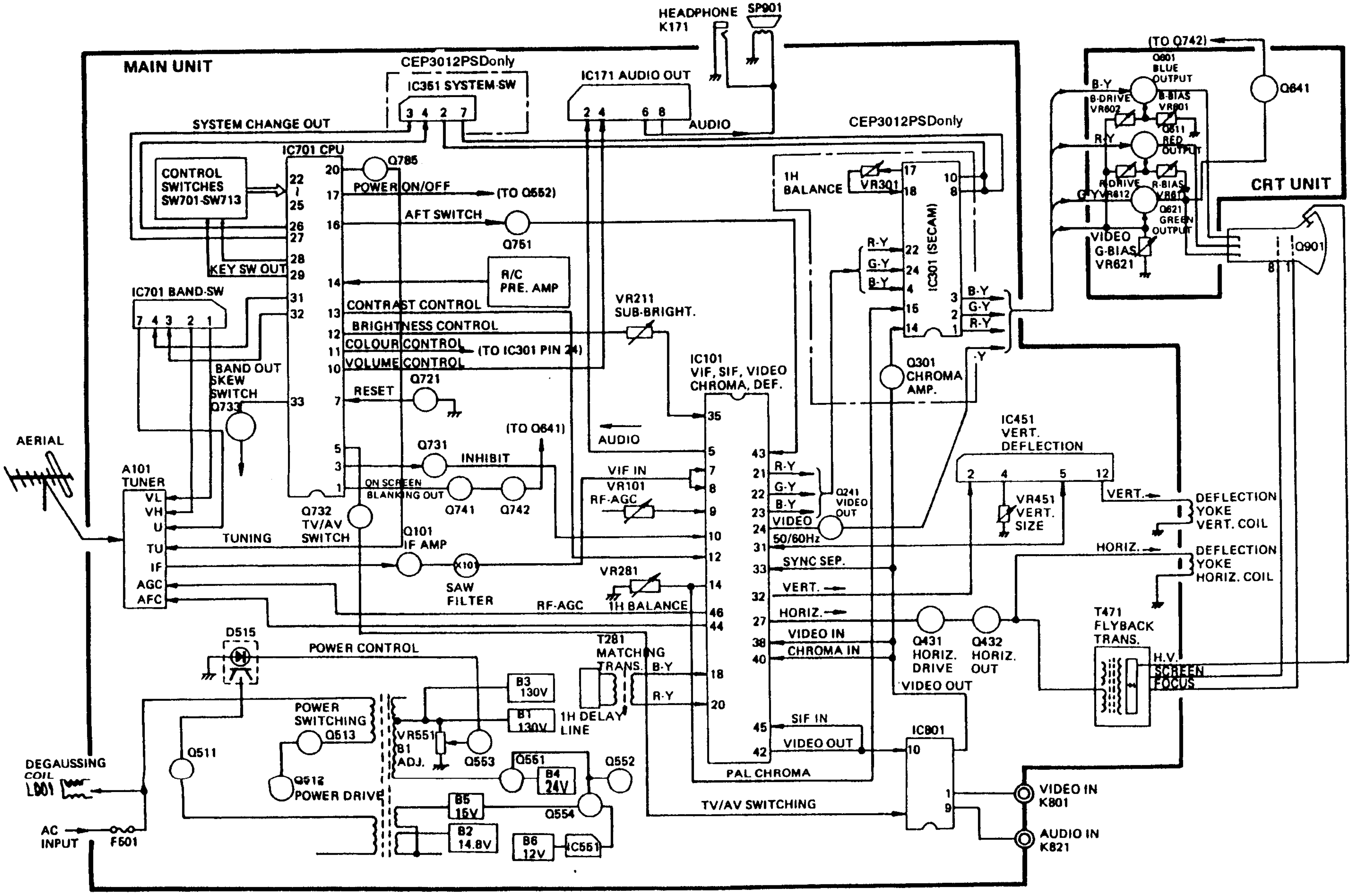
* Specifications subject to change without notice.

E2HEY/E2HYY

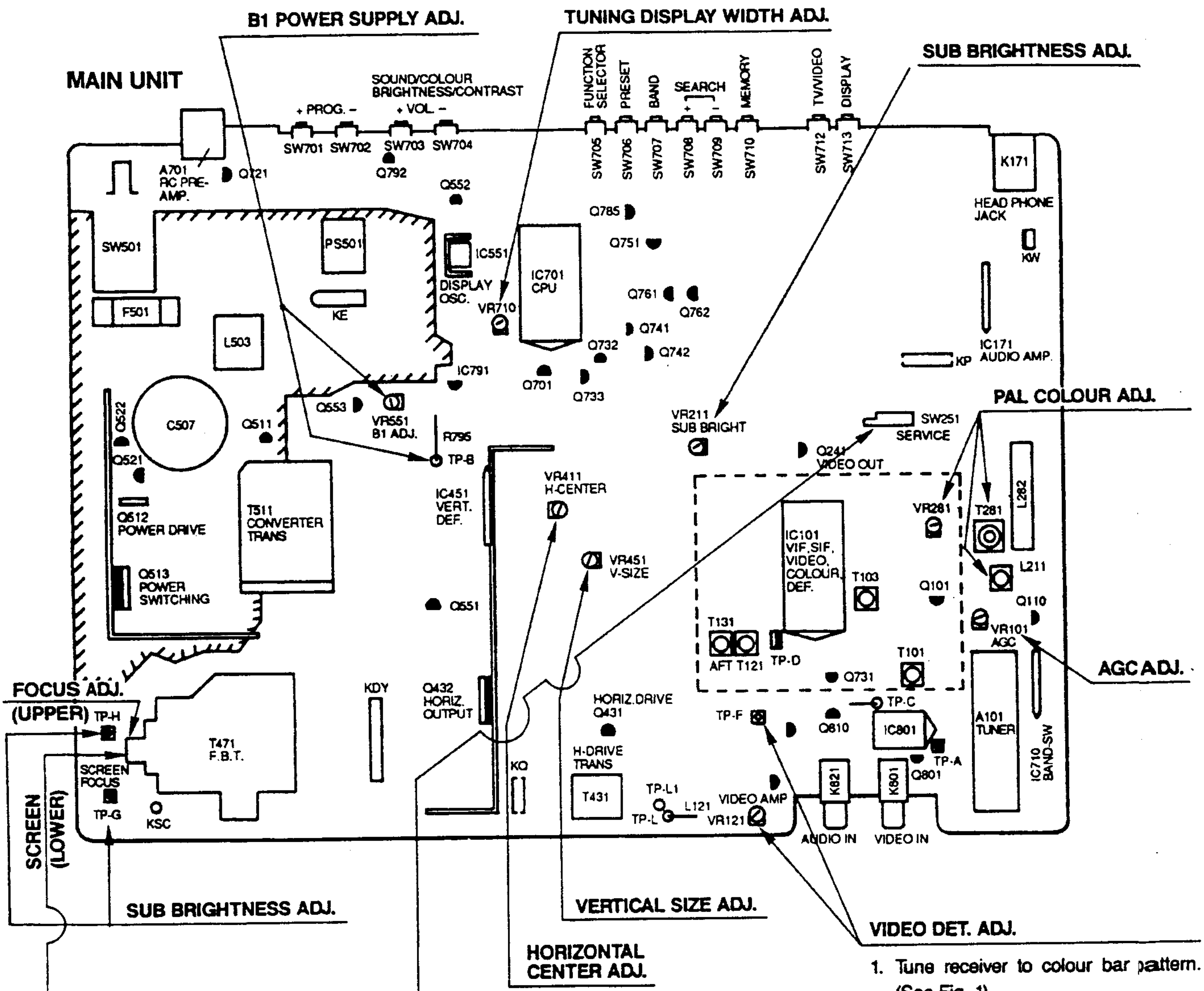
Reference No.WM-520113

1756

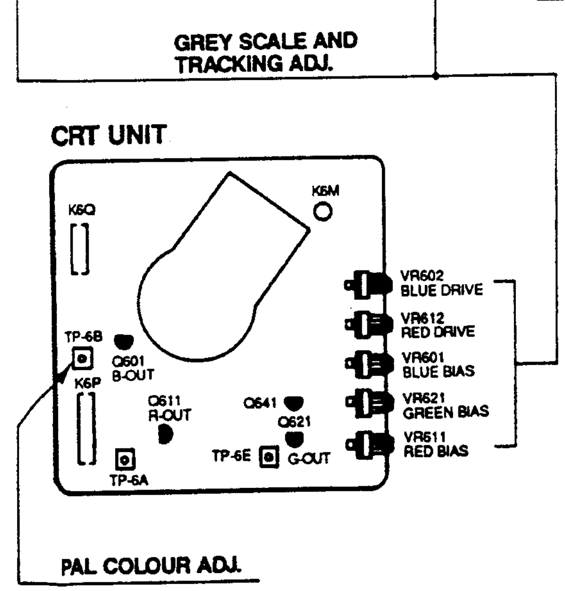
BLOCK DIAGRAM


MAIN UNIT
HEADPHONE K171
SP901
CEP3012PSDonly
IC351 SYSTEM-SW
3 4 2 7
IC171 AUDIO OUT
2 4 6 8
AUDIO
SYSTEM CHANGE OUT
CEP3012PSDonly
IC701 CPU
CONTROL SWITCHES SW701-SW713
Q785
POWER ON/OFF
(TO Q552)
AFT SWITCH
Q751
KEY SW OUT
R/C PRE. AMP
IC701 BAND-SW
7 4 3 2 1
CONTRAST CONTROL
BRIGHTNESS CONTROL
COLOUR CONTROL
(TO IC301 PIN 24)
VOLUME CONTROL
BAND OUT
SKEW SWITCH
Q733
RESET
Q721
(TO Q641)
Q731
INHIBIT
ON SCREEN BLANKING OUT
Q741
Q742
Q732 TV/AV SWITCH
Q101 IF AMP
X101
SAW FILTER
AERIAL
A101 TUNER
VL
VH
U
TU
IF
AGC
AFC
TUNING
VR211 SUB-BRIGHT.
IC101 VIF, SIF, VIDEO CHROMA, DEF.
AUDIO
VIF IN
VR101 RF-AGC
VR281
RF-AGC
1H BALANCE
1H BALANCE
VR301
IC301 (SECAM)
R-Y
G-Y
B-Y
Q301 CHROMA AMP.
-Y
Q241 VIDEO OUT
VIDEO
50/60Hz
SYNC SEP.
VERT.
HORIZ.
VIDEO IN
CHROMA IN
SIF IN
VIDEO OUT
PAL CHROMA
IC451 VERT. DEFLECTION
2 4 5 12
VR451 VERT. SIZE
DEFLECTION YOKE VERT. COIL
DEFLECTION YOKE HORIZ. COIL
T471 FLYBACK TRANS.
H.V.
SCREEN
FOCUS
Q431 HORIZ. DRIVE
Q432 HORIZ. OUT
VIDEO OUT
IC801
VIDEO IN K801
AUDIO IN K821
TV/AV SWITCHING
T281 MATCHING TRANS.
1H DELAY LINE
D515
POWER CONTROL
B3 130V
B1 130V
VR551 B1 ADJ.
Q553
Q551
B4 24V
Q552
Q554
B5 15V
B2 14.8V
B6 12V
IC551
POWER SWITCHING
Q513
Q512 POWER DRIVE
Q511
DEGAUSSING COIL L801
AC INPUT
F501
CRT UNIT
(TO Q742)
Q601 BLUE OUTPUT
B-DRIVE VR602
B-BIAS VR601
Q611 RED OUTPUT
R-DRIVE VR612
R-BIAS VR611
Q621 GREEN OUTPUT
VIDEO
G-BIAS VR621
Q641
Q901

INSTALLATION AND SERVICE ADJUSTMENT


B1 POWER SUPPLY ADJ.
TUNING DISPLAY WIDTH ADJ.
SUB BRIGHTNESS ADJ.
MAIN UNIT
SOUND/COLOUR BRIGHTNESS/CONTRAST
+ PROG. -
+ VOL. -
FUNCTION SELECTOR
PRESET
BAND
SEARCH
+ -
MEMORY
TV/VIDEO
DISPLAY
SW701
SW702
SW703
SW704
SW705
SW706
SW707
SW708
SW709
SW710
SW712
SW713
A701 RC PRE-AMP.
Q721
Q792
Q552
K171
HEAD PHONE JACK
KW
SW501
PS501
IC551
DISPLAY OSC.
VR710
IC701 CPU
Q785
Q751
Q761
Q762
Q741
Q742
Q732
Q701
Q733
F501
KE
L503
IC791
IC171 AUDIO AMP.
KP
PAL COLOUR ADJ.
Q522
C507
Q511
Q553
VR551 B1 ADJ.
R796
TP-B
VR211 SUB BRIGHT
SW251 SERVICE
Q521
Q241 VIDEO OUT
Q612 POWER DRIVE
T511 CONVERTER TRANS
IC451 VERT. DEF.
VR411 H-CENTER
VR281
T281
L282
IC101 VIF, SIF, VIDEO, COLOUR, DEF.
L211
Q513 POWER SWITCHING
VR451 V-SIZE
T103
Q101
Q110
Q551
T131
VR101 AGC
AFT T121
TP-D
T101
AGC ADJ.
FOCUS ADJ. (UPPER)
TP-H
KDY
Q432 HORIZ. OUTPUT
Q731
TP-C
HORIZ. DRIVE Q431
TP-F
Q810
IC801
A101 TUNER
T471 F.B.T.
H-DRIVE TRANS
TP-A
Q801
IC710 BAND-SW
SCREEN FOCUS
TP-G
KSC
KQ
T431
TP-L1
L121
TP-L
VIDEO AMP
VR121
K821
K801
AUDIO IN
VIDEO IN
SCREEN (LOWER)
SUB BRIGHTNESS ADJ.
VERTICAL SIZE ADJ.
VIDEO DET. ADJ.
HORIZONTAL CENTER ADJ.

1. Tune receiver to colour bar pattern. (See Fig. 1)
   Connect the oscillator to TP-F.
2. Adjust VR121 for 1.0Vp-p as shown in Fig. 2.


GREY SCALE AND TRACKING ADJ.
CRT UNIT
K6Q
K6M
VR602 BLUE DRIVE
VR612 RED DRIVE
VR601 BLUE BIAS
VR621 GREEN BIAS
VR611 RED BIAS
TP-6B
Q601 B-OUT
K6P
Q611 R-OUT
Q641
Q621
TP-6E
G-OUT
TP-6A
PAL COLOUR ADJ.

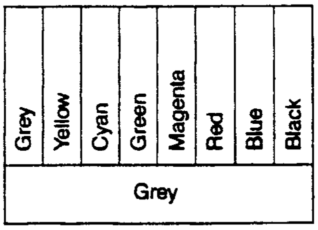

Grey
Yellow
Cyan
Green
Magenta
Red
Blue
Black
Grey

Fig. 1

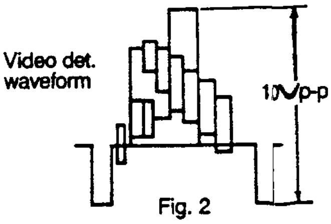

Video det. waveform
1.0Vp-p

Fig. 2

SAFETY PRECAUTIONS : An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.

X-RADIATION PRECAUTION The primary source of X-RADIATION in television receiver is the picture tube. The picture tube is specially constructed to limit X-RADIATION emission. For continued X-RADIATION protection, the replacement tube must be the same type as the original including suffix letter. Excessive high voltage may produce potentially hazardous X-RADIATION. To avoid such hazards, the high voltage must be maintain within specified limit. Refere to this service manual for specific high voltage limits. If high voltage exceeds specified limits, take necessary corrective action. Carefully follow the instructions for + B1 volt power supply adjustment, and high voltage check to maintain the high voltage within the specified limits.

AGC ADJUSTMENT

NOTE; Do not attempt this adjustment with weak signal.

1. Tune receiver to most clearest (or strongest) VHF station in your area. Set brightness and contrast controls to maximum. Set colour control to minimum.
2. Set the AGC (VR101) control to mid-range.
3. Turn AGC control in direction which causes snow to appear, then in the opposite direction until the snow just disappears.

SUB BRIGHTNESS ADJUSTMENT

1. Connect a DC meter between "TP-H" (positive lead) and "TP-G" (negative lead) on main unit.
2. Receive the circular pattern.
3. Set brightness to maximum and contrast to minimum.
4. Adjust sub brightness control (VR211) for 0.2.V.

NOTE: If picture tube replaced, check sub-brightness adjustment.

VERTICAL SIZE ADJUSTMENT

1. Tune the receiver to monochrome circular pattern.
2. Adjust vertical size (VR451) control for full scan.

HORIZONTAL CENTER ADJUSTMENT

1. Tune the receiver to monochrome circular pattern.
2. Set the brightness and contrast to maximum.
3. Adjust video phase (VR411) for optimum horizontal center position.

B1 POWER SUPPLY ADJUSTMENT

1. Connect DC meter to "TP-B" and ground. Set the + B1 adjustment control (VR551) to mid-range.
2. Set brightness and contrast to minimum. Tune the receiver to an active channel and synchronize picture.
3. Adjust + B1 adjustment control for 130 ± 1.0 volt DC.

TUNING DISPLAY WIDTH ADJUSTMENT

1. Tune the receiver to monochrome circular pattern.
2. Set the preset switch (SW706) to on. Tuning bar is displayed on screen.
3. Adjust VR710 for optimum tuning bar width. Set the preset switch to off.

GREY SCALE AND TRACKING ADJUSTMENT

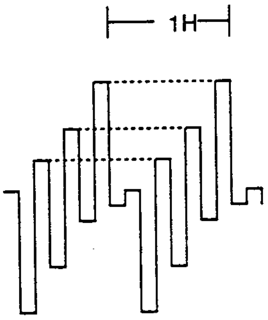
1. Tune the receiver to the monochrome circular pattern.
2. Set the brightness and the contrast to maximum, the colour to minimum.
3. Set the service switch (SW251) at the service side.
4. Set the drive volume (VR602 and VR612) at their mechanical center.
5. Set the bias volume (VR601, VR621 and VR611) to minimum. (fully counter clockwise).
6. Turn the screen volume to obtain just visible one coloured line.
7. Adjust each bias volume (VR601-blue, VR621-green and VR611-red) alternately until a dim white line produced.
8. Set the service switch (SW251) at the normal side.
9. Adjust the drive volume (VR602-blue and VR612-red) alternately to produce normal black and white picture.
10. Check for proper grey scale tracking at all brightness levels.

NOTE : If grey scale adjustment is made after picture tube replacement, check high voltage and sub-brightness adjustment.

COLOUR ADJUSTMENT (PAL)

Receive colour bar pattern.

Set controls: brightness............maximum
colour...................maximum
contrast................maximum

	ADJUST	REMARKS
Connect the oscilloscope to TP6B on CRT unit		
1	VR281,T281	Adjust VR281,T281 to obtain each 1H waveform(amplitude) for same as shown below. 
2	L211	Adjust L211 to obtain proper waveform as shown above.

FOCUS ADJUSTMENT

Adjust focus control on the left side of the chassis for well scanning lines.

HIGH VOLTAGE CHECK

1. Tune the receiver to the circular pattern.
2 Set brightness and contrast to maximum.
3 Connect a high voltage probe to anode lead of picture tube.
4. High voltage must be between 20-22KV.

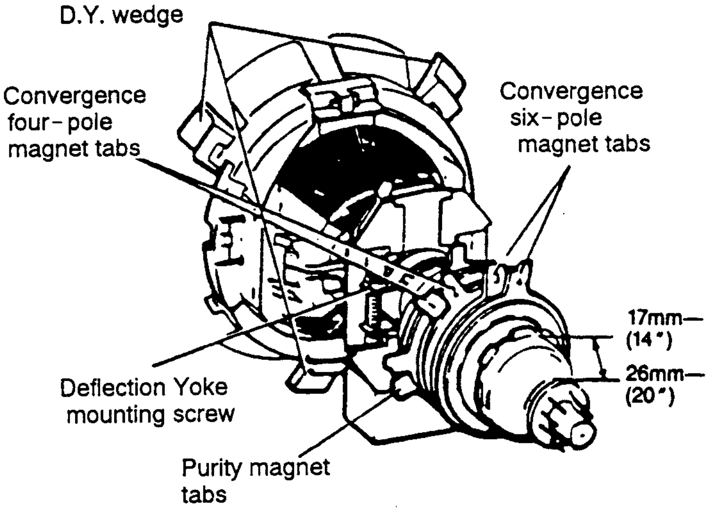
NOTE: If picture tube replaced, check high voltage.

PURITY AND CONVERGENCE ADJUSTMENT

CAUTION ; Convergence and purity have been factory aligned. Do not attempt to tamper with these alignments. However, the effects of adjacent receiver components, or replacement of picture tube or deflection yoke may require the need to readjust purity and convergence. If adjustment is required, the adjustments should be made in the following sequence.

PURITY ADJUSTMENTS

1. Use a colour (Red, Green and Blue) pattern signal. Receiver should be operated for at least ten minutes.
2. Place the picture tube face east or west and demagnetize the picture tube and receiver using an external degaussing coil.
3. Turn off red and blue rasters and provide only green raster on CRT screen.
4. Loosen the screw holding the deflection yoke and remove the three D.Y. wedges, and slide the deflection yoke fully frontward.
5. Rotate the two purity magnet tabs (widen or narrow the mutual angle made by the two tabs) to center a vertical green stripe. (If the vertical green stripe doesn't be obtained, slide the deflection yoke backward)
   NOTE: Do not move the vertical center position by adjusting purity magnet.
6. Slowly slide the deflection yoke backward (or frontward) until a uniform green raster is obtained.


D.Y. wedge
Convergence four-pole magnet tabs
Convergence six-pole magnet tabs
17mm— (14")
26mm— (20")
Deflection Yoke mounting screw
Purity magnet tabs

NOTE: Following is 20" only.

If some part of screen is contaminated with other colors (in most cases it will appear at corner of screen), put the purity correction magnet chip on back of that corner near the deflection yoke.
See Figure-A to position the purity correction magnet chip.
Slide and rotate the purity correction magnet chip until pure green screen is obtained.
Use necessary chips until uniform green is obtained overall the screen. Use the tape (or adhesive) to fix the magnet on the picture tube.

7. Check the purity of the red and blue rasters for uniformity. (Turn up red raster and turn off green and blue rasters. Turn up blue raster and turn off green and red rasters). Readjust the deflection yoke position if necessary until all rasters are pure.
   If part of the screen at each direction (east, west, north or south) is colored, demagnetize the receiver and the picture tube and adjust the deflection yoke position slightly front-ward or backward.
8. Tighten the mounting screw of the deflection yoke and mount D.Y.wedges.

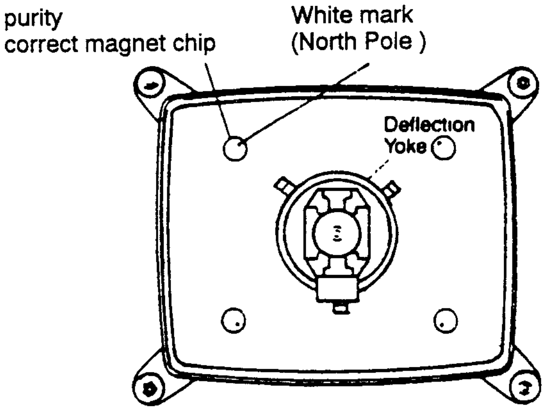
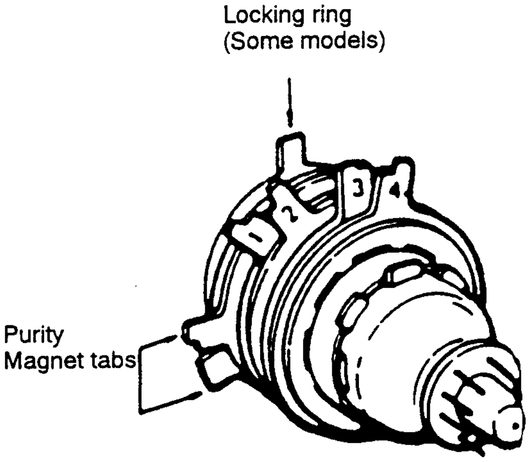


Fig.A

CONVERGENCE ADJUSTMENTS

Before any convergence adjustments are made, purity must be adjusted properly. Connect cross-hatch generator to aerial socket. Loosen locking ring provided on purity and convergence magnet.

Note: When adjust the convergence magnets, do not move purity magnets.



[Purity and convergence magnets]

CENTER CONVERGENCE

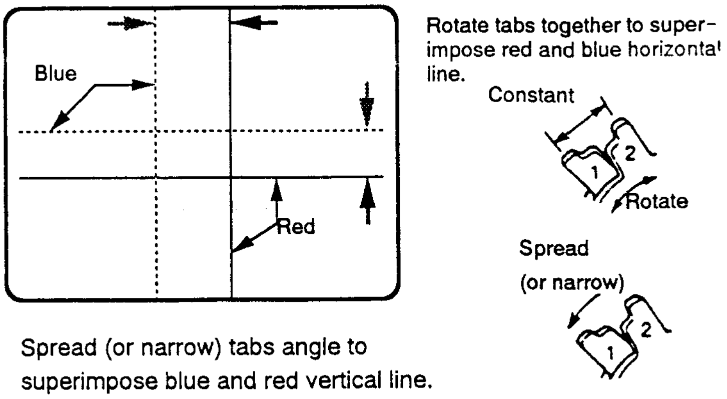
1. Turn off green raster and provide blue and red raster on CRT.
2. To superimpose the red/blue vertical lines,spread (or narrow) the angle of magnet tab 1 and tab 2. See Fig-1.
3. To superimpose the red/blue horizontal lines,rotate the magnet tabs 1 and 2 together (keeping the angle of magnet tabs 1 and 2). See Fig-1.
4. Turn up green raster.
5. To superimpose the green and magenta (blue/red) vertical lines, spread (or narrow) the angle of magnet tab 3 and tab 4. See Fig.2.
6. To superimpose the green and magenta (blue/red) horizontal lines, rotate the magnet tabs 3 and 4 together (keeping the angle of magnet tabs 3 and 4). See Fig-2.
   Now forming white cross-hatch pattern at center of screen.
   Fasten locking ring.

OUTER AREA CONVERGENCE

If the misconvergence on the outer area exists, adjust as follow.

Swing the deflection yoke the ← direction, red/blue lines on the screen move the ← direction.

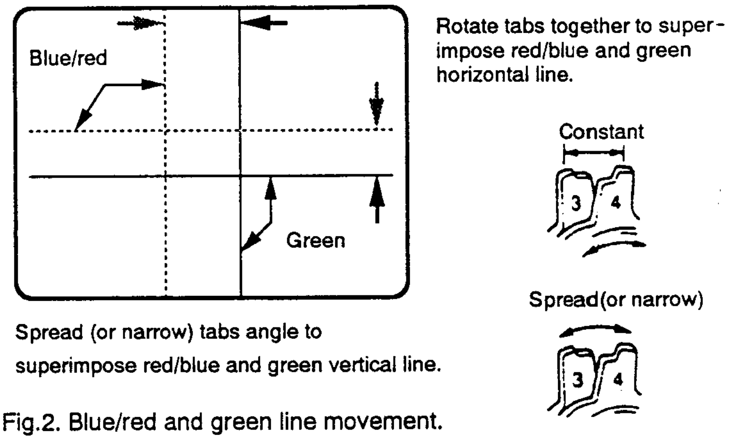
Swing the deflection yoke the ← direction, red/blue lines on the screen move the ← direction.
Fastening the deflection yoke, insert and fix the D.Y. spacer.


Blue
Red
Constant
1
2
Rotate
Spread
(or narrow)
1
2

Rotate tabs together to superimpose red and blue horizontal line.

Spread (or narrow) tabs angle to superimpose blue and red vertical line.

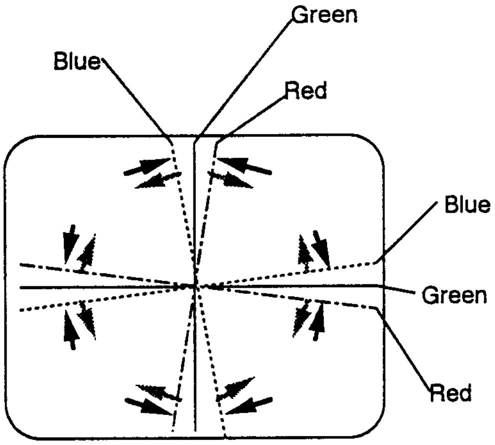
Fig.1 Blue and red line movement

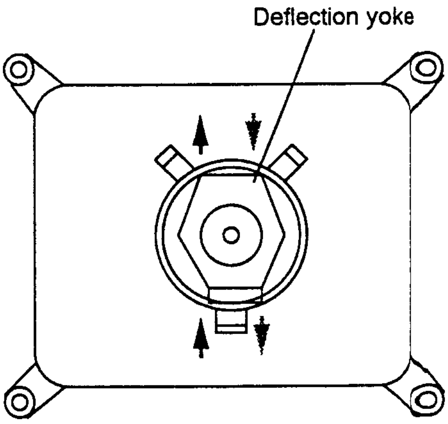

Blue/red
Green
Constant
3
4
Spread(or narrow)
3
4

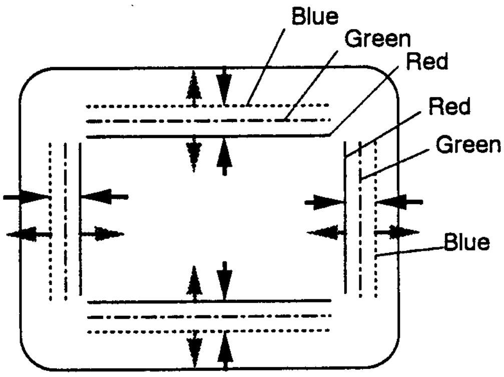
Rotate tabs together to superimpose red/blue and green horizontal line.

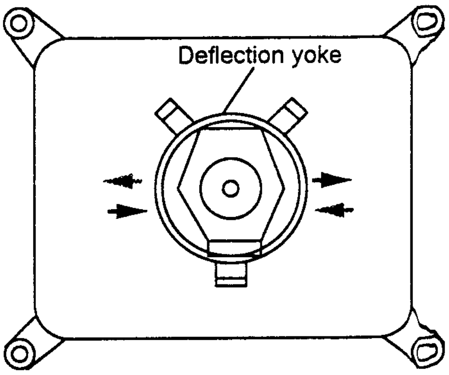
Spread (or narrow) tabs angle to superimpose red/blue and green vertical line.

Fig.2. Blue/red and green line movement.


Green
Blue
Red
Blue
Green
Red

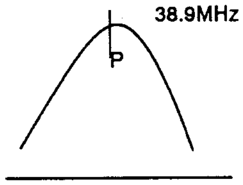
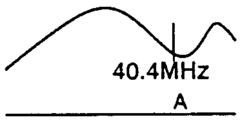
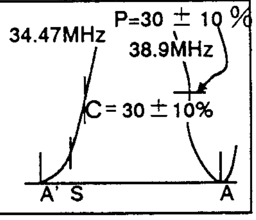

Deflection yoke


Blue
Green
Red
Red
Green
Blue

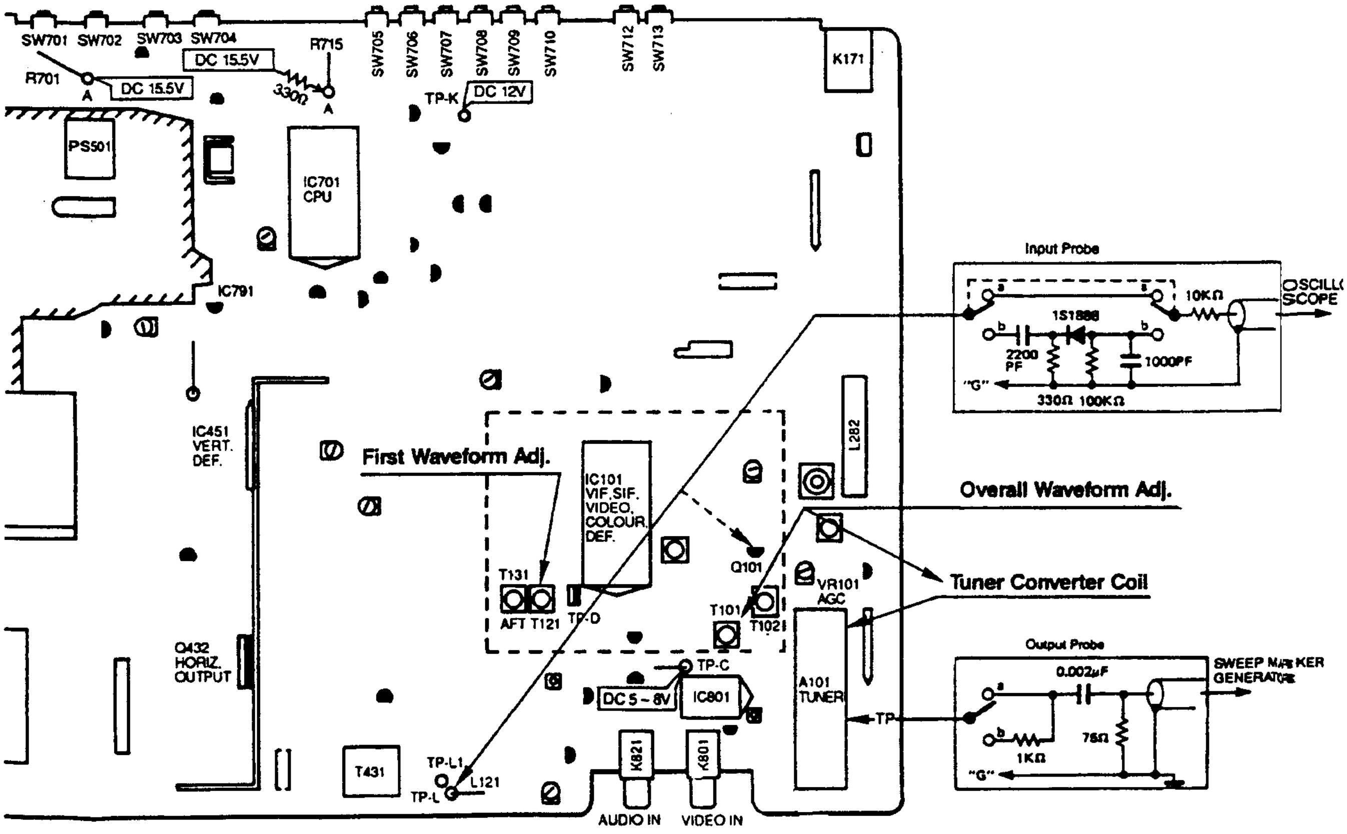

Deflection yoke

ADJUSTMENT INSTRUCTIONS

VIF Adjustment

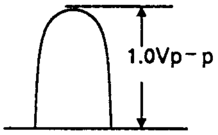
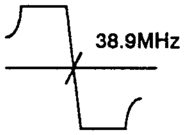
Item		1st wave form	Adjacent sound Trap Adj.	Overall waveform
connection	DC 15.5v	R701 – A	R701 – A	R701 – A
	DC 5 – 8V	TP – C	TP – C	TP – C
	Output probe	TU – TP	TU – TP	TU – TP
	Input probe	TP – L	Q101(collector)	TP – L
	DC 12V(Tuning)	TP – K	TP – K	TP – K
	DC 15.5V	R715-A(through330 Ω)	R715-A(through330 Ω	R715-A(through330 Ω)
Condition Output	Out put probe	a – side	a – side	b – side
	Input probe	a – side	b – side	a – side
	VR101	Clockwise end	Clockwise end	Clockwise end
	Oscilloscope sens.	100mV/div.	100mV/div.	100mV/div.
	Sweep att.	0 dB	0 dB	20dB
	Damping resister	Non.	Non.	100 Ω TP-D
	Channel band	VHF – low	VHF – low	VHF-low
Adjustment		Adjust T121 for 38.9MHz maximum.	Adjust T102 for 40.4 MHz minimum.	Adjust Tu converter and T101,waveform : below .
Waveform				

MAIN UNIT

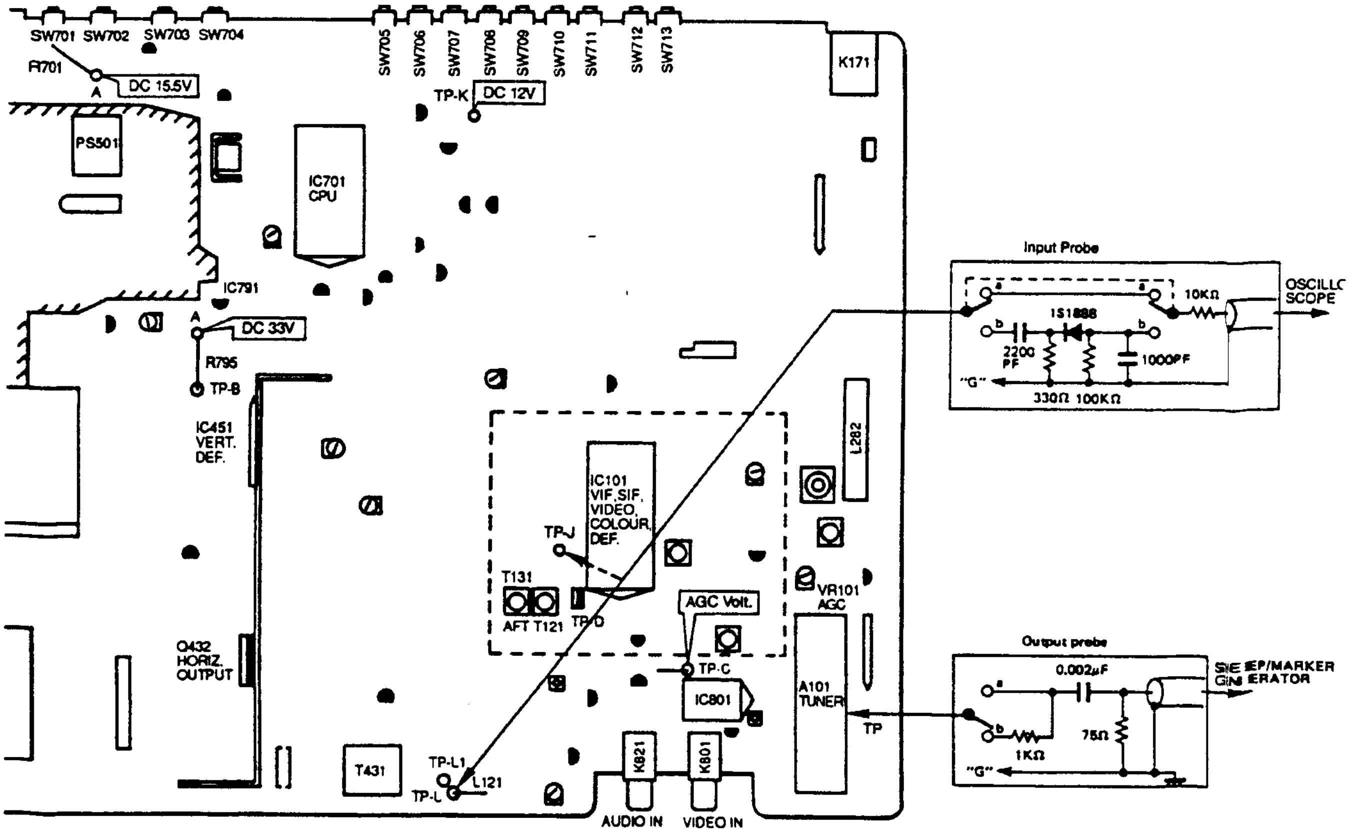


SW701 SW702 SW703 SW704
R701
A
DC 15.5V
DC 15.5V
R715
330Ω
A
SW705 SW706 SW707 SW708 SW709 SW710
SW712 SW713
TP-K
DC 12V
K171
PS501
IC701
CPU
IC791
IC451
VERT.
DEF.
First Waveform Adj.
IC101
VIF.SIF.
VIDEO.
COLOUR.
DEF.
T131
AFT T121
TP-D
Q101
VR101
AGC
T101
T102
L282
Overall Waveform Adj.
Tuner Converter Coil
TP-C
DC 5 - 8V
IC801
A101
TUNER
TP
Q432
HORIZ.
OUTPUT
T431
TP-L1
TP-L
L121
K821
K801
AUDIO IN
VIDEO IN
Input Probe
a
b
10KΩ
1S1888
2200 PF
1000PF
"G"
330Ω 100KΩ
OSCILL
SCOPE
Output Probe
0.002μF
75Ω
1KΩ
SWEEP MARKER
GENERATOR

AFT ADJUSTMENT

Item		AGC Volt Alignment	Resonance Frequency Adj.
connection	DC 15.5v	R701 – A	R701 – A
	DC (AGC)	TP – C	TP – C
	Output probe	Tuner – TP	Tuner – TP
	Input probe(A side)	TP – L	TP – J
	DC 12V(Tuning)	TP – K	TP – K
	DC 33V	R795 – A	R795 – A
Condition	Sweep ATT	20dB	20dB
	Output probe	Side – b	Side – b
	Oscilloscope	100mV/div.	1V/div.
	Sen.SG. out put	Non.	20 mV rms(Att. 20dB)
	Damping resister	TP – D	Non.
Adjustment		Fix the AGC voltage when the overall wave form level is adjusted at 1.0V p-p.	Keep AGC voltage which is adjusted at AGC volt – alignment, and adjust T131 for 38.9MHz marker is just on the reference line.
Waveform			

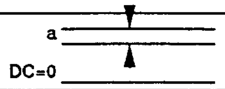
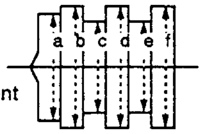
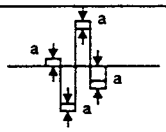
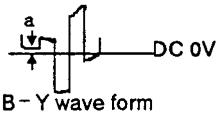
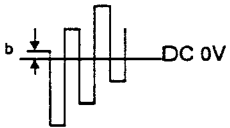
MAIN UNIT

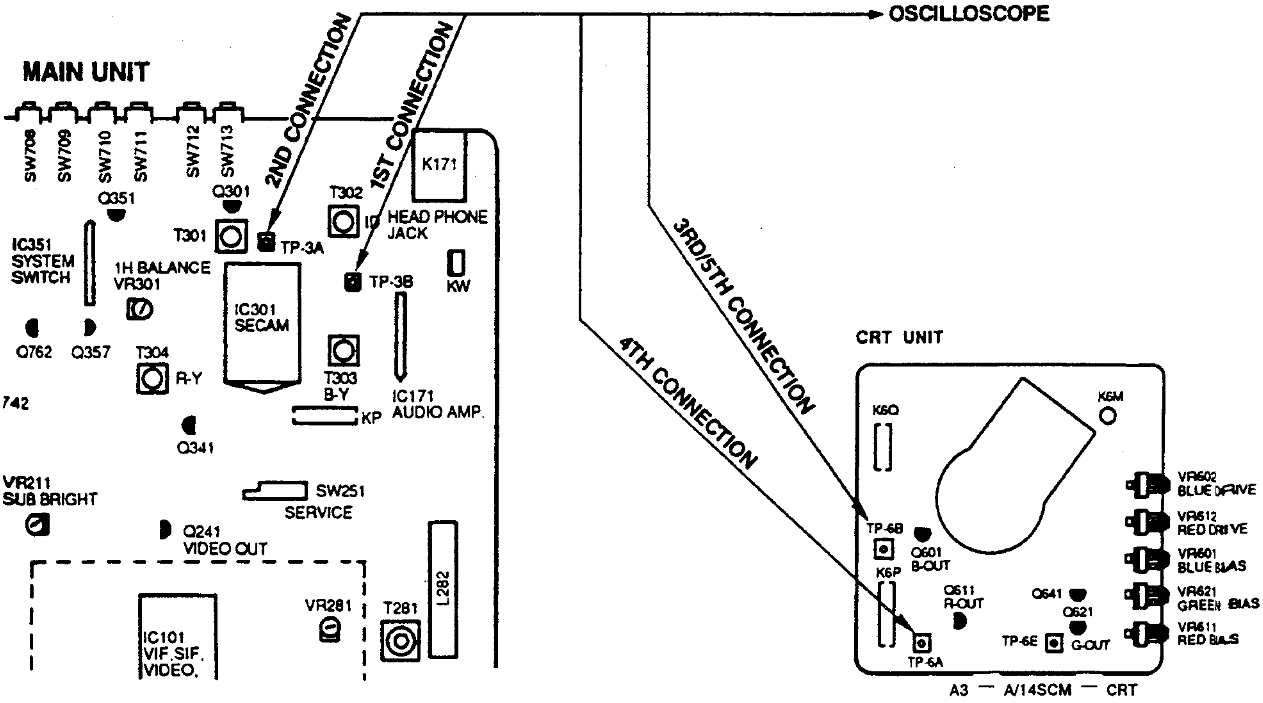


SW701
SW702
SW703
SW704
SW705
SW706
SW707
SW708
SW709
SW710
SW711
SW712
SW713
R701
A
DC 15.5V
TP-K
DC 12V
K171
PS501
IC701
CPU
IC791
A
DC 33V
R795
TP-B
IC451
VERT.
DEF.
Q432
HORIZ.
OUTPUT
T431
TP-L1
TP-L
L121
IC101
VIF,SIF,
VIDEO,
COLOUR,
DEF.
TP-J
T131
AFT T121
TP-D
AGC Volt.
TP-C
IC801
VR101
AGC
L282
A101
TUNER
TP
K821
K801
AUDIO IN
VIDEO IN
Input Probe
a
a
b
b
1S1888
10KΩ
2200 PF
1000PF
"G"
330Ω 100KΩ
OSCILLC
SCOPE
Output probe
0.002μF
a
b
1KΩ
75Ω
"G"
SWEEP/MARKER
GENERATOR

SECAM CHROMA ADJ. (MODEL CEP3012PSD only)

Preparation steps
1. Connect the colour bar generator (SECAM signal) to aerial terminal socket.
   Set brightness, colour and contrast to maximum.
2. Connect the oscilloscope to TP – 3B.

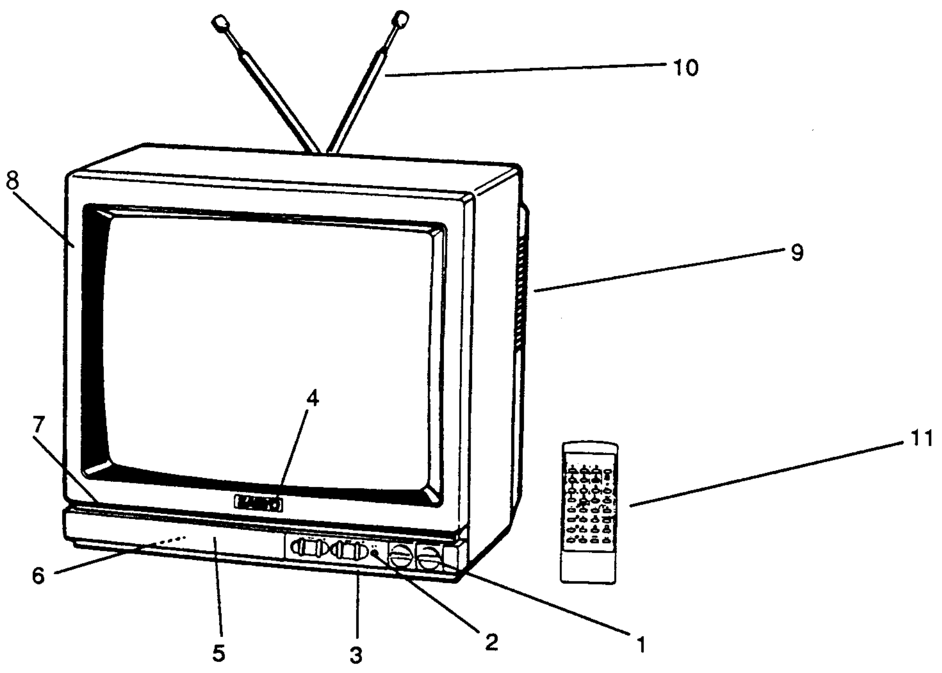
	Adjust	Remarks
1	T302	Adjust T302 for minimum DC level and for minimum amplitude at "a" position. 
	Disconnect the oscilloscope, reconnect the oscilloscope to TP – 3A.	
2	T301	Adjust T301 for same amplitude in each colour bar waveform as shown right. Adjust T301 c=d=e=f Bell filter adjustment 
	Disconnect the oscilloscope, reconnect the oscilloscope to TP – 6B of the CRT unit.	
3	VR301	Adjust VR301 for minimum amplitude at "a" position. Note: If VR301 readjusted, recheck PAL colour adjustment. 
	Disconnect the oscilloscope, reconnect the oscilloscope to TP – 6A of the CRT unit.	
4	T304	Adjust T304 fro a=0.  B – Y wave form
	Disconnect the oscilloscope, reconnect the oscilloscope to TP – 6B of the CRT unit.	
5	T303	Adjust T303 for b=0.  B – Y wave form


OSCILLOSCOPE
MAIN UNIT
2ND CONNECTION
1ST CONNECTION
3RD/5TH CONNECTION
4TH CONNECTION
SW708
SW709
SW710
SW711
SW712
SW713
Q351
Q301
T302
K171
HEAD PHONE JACK
IC351 SYSTEM SWITCH
T301
TP-3A
1H BALANCE VR301
TP-3B
KW
IC301 SECAM
Q762
Q357
T304
R-Y
T303
B-Y
IC171 AUDIO AMP.
742
KP
Q341
VR211 SUB BRIGHT
SW251 SERVICE
Q241 VIDEO OUT
VR281
T281
L282
IC101 VIF.SIF. VIDEO.
CRT UNIT
K6Q
K6M
TP-6B
Q601 B-OUT
K6P
Q611 R-OUT
Q641
Q621
TP-6E
G-OUT
TP-6A
VR602 BLUE DRIVE
VR612 RED DRIVE
VR601 BLUE BIAS
VR621 GREEN BIAS
VR611 RED BIAS
A3 — A/14SCM — CRT

CABINET PARTS LIST

Note: Parts order must contain Service Ref.No.,Key No.,Part No.and Description.

Model CEP3012D / CEP3012PSD



NEW — HECABI 4/24

Key No.	Part No.	Description
1	610 216 7870	Power button
	610 082 4409	Spring(Power button)
2	610 217 1051	Touch button ass'y
3	610 216 6385	Panel decoration plate
4	610 216 6330	SANYO badge
5	610 223 8976	Door
6	610 216 6606	Control decoration sheet
7	610 216 6590	Escutchen dec. sheet
8	610 216 6262	Escutchen

Key No.	Part No.	Description
9	610 206 1291	Back cover
	610 223 9355	Rating sheet (Model CEP3012D)
	610 223 9379	Rating sheet (Model CEP3012PSD)
10	610 217 1006	Telescopic aerial
or	610 011 6405	Telescopic aerial
11	610 216 3865	Remote control transmitter "JXGT"
12	610 211 9299	Aerial matching box

CPU REPLACEMENT : IMPORTANT NOTE

When IC701 (M34300N4-622SP) is replaced,it is necessary to make the initialize of IC701 as following procedure.

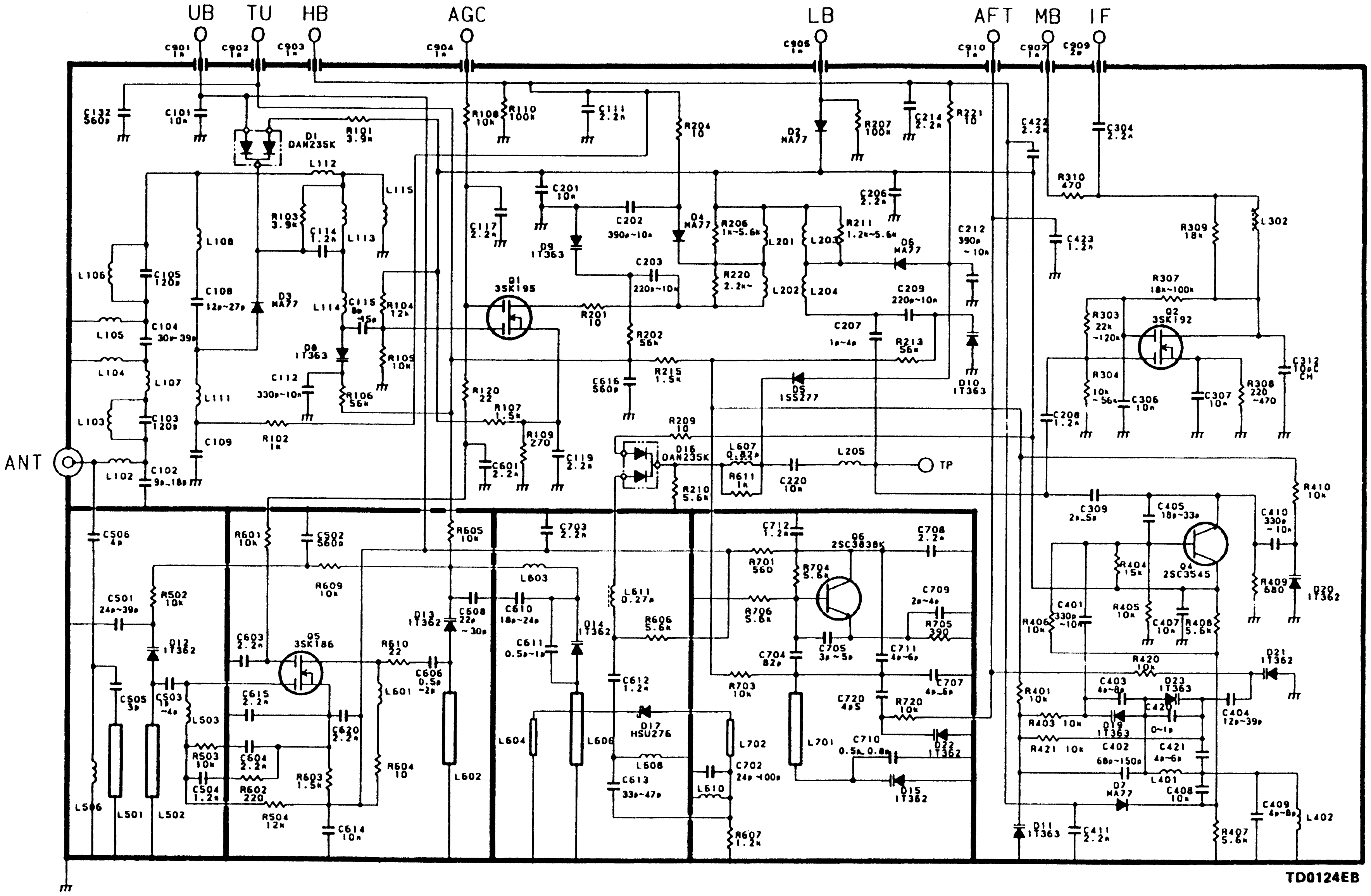
(1) Switch off the TV set.
(2) Replace IC701.
(3) Switch on the TV set.
(4) Select programme position "1" directly with the remote control transmitter.
(5) Press and hold the SPECIAL key (of the remote control transmitter) for more than 2.5 seconds, and input SPECIAL CODE "01" using the programme selector of the remote control transmitter.
(6) Press the MEMORY button of the TV set.

REMARKS: If there is mistaking the procedure, switch off the TV set and repeat steps (3) to (6).

The initialize is now completed.

Next ,operate the pre – setting of stations to allocate the TV channels.
Refer to the instruction manual of this TV set.

TUNER CIRCUIT DIAGRAM


UB
TU
HB
AGC
LB
AFT
MB
IF
ANT
TP
C901 1n
C902 1n
C903 1n
C904 1n
C905 1n
C910 1n
C907 1n
C909 2p
C132 560p
C101 10n
D1 DAN235K
R101 3.9k
L112
L115
R103 3.9k
C114 1.2n
L113
L108
L106
C105 120p
C108 12p~27p
D3 MA77
L114
C115 8p
R104 12k
45p
L105
C104 30p~39p
D8 1T363
R105 10k
L104
L107
L111
C112 330p~10n
R106 56k
L103
C103 120p
C109
R102 1k
L102
C102 9p~18p
R108 10k
R110 100k
C111 2.2n
R204 10
D2 MA77
R207 100k
C214 2.2n
R221 10
C422 2.2n
C304 2.2n
C201 10n
C117 2.2n
C202 390p~10n
D4 MA77
R206 1k~5.6k
L201
L203
R211 1.2k~5.6k
C206 2.2n
R310 470
D9 1T363
Q1 3SK195
C203 220p~10n
R220 2.2k~
L202
L204
C209 220p~10n
C212 390p ~10n
D6 MA77
C423 1.2n
R309 18k
L302
R201 10
R202 56k
C207 1p~4p
R213 56k
R307 18k~100k
R303 22k ~120k
Q2 3SK192
C312 10pC CH
C616 560p
R215 1.5k
D10 1T363
R120 22
R107 1.5k
D5 1SS277
R304 10k ~56k
C306 10n
C307 10n
R308 220 ~470
R109 270
C119 2.2n
R209 10
D16 DAN235K
L607 0.82μ
C208 1.2n
C601 2.2n
L205
R611 1k
C220 10n
R210 5.6k
R410 10k
C309 2p~5p
C405 18p~33p
C410 330p ~10n
C506 4p
R601 10k
C502 560p
R605 10k
C703 2.2n
C712 1.2n
Q6 2SC3838K
C708 2.2n
R404 15k
Q4 2SC3545
R409 680
D20 1T362
C501 24p~39p
R502 10k
R609 10k
L603
R701 560
R704 5.6k
C709 2p~4p
L611 0.27μ
C610 18p~24p
D13 1T362
C608 22p ~30p
D14 1T362
R606 5.6k
R706 5.6k
R705 390
C401 330p ~10n
R405 10k
C407 10n
R408 5.6k
R406 10k
D12 1T362
C603 2.2n
Q5 3SK186
R610 22
C611 0.5p~1p
C704 82p
C705 3p~5p
C711 4p~6p
C606 0.5p ~2p
C612 1.2n
R420 10k
D21 1T362
C505 3p
C503 1p ~4p
C615 2.2n
L601
R703 10k
C707 4p~6p
C403 4p~8p
D23 1T363
L503
C620 2.2n
D17 HSU276
C720 4pS
R720 10k
R401 10k
C420
C404 12p~39p
R503 10k
C604 2.2n
R604 10
L604
L606
L608
L702
L701
D22 1T362
R403 10k
D19 1T363
0~1p
C710 0.5p~0.8p
R421 10k
C402 68p~150p
C421 4p~6p
R603 1.5k
C613 33p~47p
C702 24p~100p
L401
C504 1.2n
R602 220
L610
D15 1T362
D7 MA77
C408 10n
C409 4p~8p
L402
L506
L501
L502
R504 12k
C614 10n
L602
R607 1.2k
D11 1T363
C411 2.2n
R407 5.6k

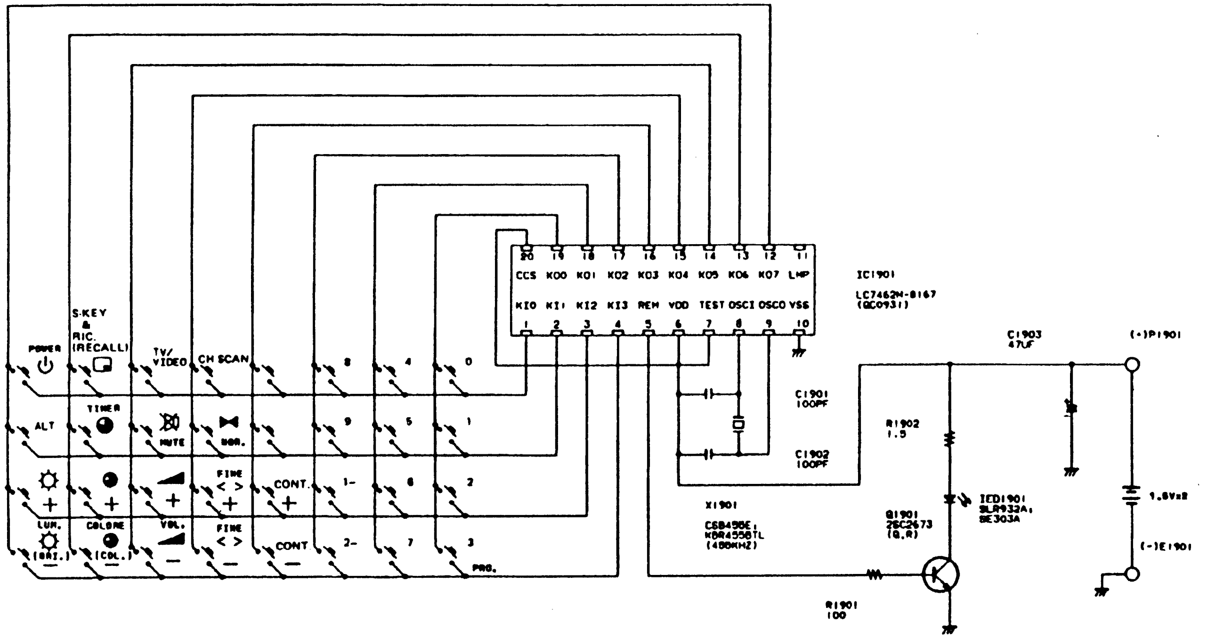
TD0124EB

Q1 ; 3SK195 . 3SK182 . 3SK137 . 3SK144 . 3SK192 . 3SK194
Q2 ; 3SK192 . 3SK137 . 3SK131 . 3SK151 . 3SK194 . 3SK169
Q4 ; 2SC3545. 2SC3124. 2SC2757. 2SC2735. 2SC2480
Q5 ; 3SK186 . 3SK143 . 3SK199 . 3SK135 . 3SK207
Q6 ; 2SC3838K. 2SC2734. 2SC3545. 2SC3130. 2SC3121

D1 . D16 ; DAN235K. HSM2693. 1SS268
D8 -D11 ; 1T363 . 1SV215. 1SV232. HSV200. 1SV219. MA366 . MA371
D12-D15 ; 1T362 . 1SV214. HVU202. 1SV221. MA360 . 1SV223
D19. D23 ; 1T363 . HSV200. 1SV219. MA366 . MA371
D2-D4, D6, D7 ; MA77 , 1SS314. 1SS317. 1SS316. HSU277. 1SS318
D5 ; 1SS277. 1SS135. 1SS110
D17 ; HSU276. 1SS315. 1SS237
D20. D21. D22 ; 1T362 . MA367 . 1SV126. 1SV223. 1SV214

REMOTE CONTROL TRANSMITTER CIRCUIT DIAGRAM

REMOTE CONTROL TRANSMITTER JXGT (610 216 3865)


20
19
18
17
16
15
14
13
12
11
CCS
KO0
KO1
KO2
KO3
KO4
KO5
KO6
KO7
LMP
KI0
KI1
KI2
KI3
REM
VDD
TEST
OSCI
OSCO
VSS
1
2
3
4
5
6
7
8
9
10
IC1901
LC7462M-8167
(QC0931)
C1903
47UF
(+)P1901
C1901
100PF
R1902
1.5
C1902
100PF
1.8V×2
X1901
CSB456E;
KBR456BTL
(456KHZ)
Q1901
2SC2673
(Q,R)
IED1901
SLR932A;
SE303A
(-)E1901
R1901
100
POWER
S-KEY
&
RIC.
(RECALL)
TV/
VIDEO
CH SCAN
8
4
0
ALT
TIMER
MUTE
NOR.
9
5
1
+
+
+
FINE
< >
+
CONT.
+
1-
6
2
LUM.
(BRI.)
—
COLORE
(COL.)
—
VOL.
—
FINE
< >
—
CONT
—
2-
7
3
PRG.

Repair Parts List MODEL CEP3012D

Rroduct safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a ⚠ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

Note: Part order must contain Service Ref. No. , Part Ref. No. , Part No. ,and description.

Ref. No.	Part No.	Description
610 218 1654 CRT UNIT-E2HR UE2095		
TRANSISTER		
Q601	405 040 5600	TR 2SC2228-D
	405 029 6901	TR 2SC2228-E
	406 000 5104	TR 2SC2229-O(SAN-2)
	406 000 5203	TR 2SC2229-Y(SAN-2)
Q611	405 040 5600	TR 2SC2228-D
	405 029 6901	TR 2SC2228-E
	406 000 5104	TR 2SC2229-O(SAN-2)
	406 000 5203	TR 2SC2229-Y(SAN-2)
Q621	405 040 5600	TR 2SC2228-D
	405 029 6901	TR 2SC2228-E
	406 000 5104	TR 2SC2229-O(SAN-2)
	406 000 5203	TR 2SC2229-Y(SAN-2)
Q641	405 040 5600	TR 2SC2228-D
	405 029 6901	TR 2SC2228-E
	406 000 5104	TR 2SC2229-O(SAN-2)
	406 000 5203	TR 2SC2229-Y(SAN-2)
CAPACITOR		
C601	403 071 5606	CERAMIC 220P K 50V
C602	403 073 6403	CERAMIC 470P K 50V
C611	403 071 5606	CERAMIC 220P K 50V
C612	403 073 6403	CERAMIC 470P K 50V
C621	403 071 5606	CERAMIC 220P K 50V
C622	403 074 5702	CERAMIC 560P K 50V
C631	403 077 2708	CERAMIC 1000P P 2K
C632	403 077 2708	CERAMIC 1000P P 2K
C633	403 076 7100	CERAMIC 1000P M 1K
C642	403 024 0009	CERAMIC 39P J 50V
RESISTER		
R601	401 065 4604	OXIDE-MT 12K JA 2W
R602	401 002 0102	SOLID 3.3K KA 1/2W
R603	401 014 2903	CARBON 150 JA 1/4W
R611	401 065 4604	OXIDE-MT 12K JA 2W
R612	401 002 0102	SOLID 3.3K KA 1/2W
R613	401 014 2903	CARBON 150 JA 1/4W
R621	401 065 4604	OXIDE-MT 12K JA 2W
R622	401 002 0102	SOLID 3.3K KA 1/2W
R623	401 014 2903	CARBON 150 JA 1/4W
R624	401 017 0807	CARBON 270 JA 1/4W
R631	401 001 7607	SOLID 270K KA 1/2W
R632	401 018 1605	CARBON 33 JA 1/4W
R642	401 012 5708	CARBON 1K JA 1/4W
VARIABLE RESISTER		
VR601	610 019 0108	B-5
VR602	610 018 9164	VR B-500
VR611	610 019 0108	B-5
VR612	610 018 9164	VR B-500
VR621	610 019 0108	B-5
COIL		
L633	610 032 4381	FILTER COIL
	610 032 4404	FILTER COIL
MISCELLANEUS		
KTP6A	610 014 3364	M/C TERMINAL PLUG
KTP6B	610 014 3364	M/C TERMINAL PLUG
KTP6E	610 014 3364	M/C TERMINAL PLUG
K6M	610 014 3364	M/C TERMINAL PLUG
K601	610 010 4938	CRT SOCKET
610 223 6651 MAIN UNIT-E2HE-A UE2268A		
TRANSISTER		
Q101	405 014 9207	TR 2SC2570A
Q110	405 023 4903	TR 2SD400-D-MP
	405 023 5009	TR 2SD400-E-MP
	405 023 5306	TR 2SD400-F-MP
Q124	406 000 6804	TR 2SA1015-GR(SAN)
	405 001 7407	TR 2SA1015-O(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
	405 004 3109	TR 2SA564A-Q(CU)
	405 004 3208	TR 2SA564A-R(CU)
	405 004 4205	TR 2SA608-E-CTV-NP
	405 004 4809	TR 2SA608-F-CTV-NP
	405 006 1103	TR 2SA933-Q
	405 006 1202	TR 2SA933-R
	405 006 1707	TR 2SA933S-Q
	405 006 1806	TR 2SA933S-R
Q181	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q241	405 001 7407	TR 2SA1015-O(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
Q431	405 014 2406	TR 2SC2383-O(SAN)
	405 014 2505	TR 2SC2383-R(SAN)
Q432	405 022 6601	TR 2SD1649-CTV-YB
Q511	406 000 6804	TR 2SA1015-GR(SAN)
	405 001 7407	TR 2SA1015-O(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
	405 004 3109	TR 2SA564A-Q(CU)
	405 004 3208	TR 2SA564A-R(CU)
	405 004 4205	TR 2SA608-E-CTV-NP
	405 004 4809	TR 2SA608-F-CTV-NP
	405 006 1103	TR 2SA933-Q
	405 006 1202	TR 2SA933-R
	405 006 1707	TR 2SA933S-Q
	405 006 1806	TR 2SA933S-R
Q512	405 058 0208	TR 2SC3807-R-CTV-YA
Q513	405 022 8506	TR 2SD1710-CTV-YB
Q551	405 008 4805	TR 2SB764-E

Ref. No.	Part No.	Description
Q552	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q553	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q554	405 008 4805	TR 2SB764-E
Q701	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q721	406 000 6804	TR 2SA1015-GR(SAN)
	405 001 7407	TR 2SA1015-O(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
	405 004 3109	TR 2SA564A-Q(CU)
	405 004 3208	TR 2SA564A-R(CU)
	405 004 4205	TR 2SA608-E-CTV-NP
	405 004 4809	TR 2SA608-F-CTV-NP
	405 006 1103	TR 2SA933-Q
	405 006 1202	TR 2SA933-R
	405 006 1707	TR 2SA933S-Q
	405 006 1806	TR 2SA933S-R
Q731	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q732	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q733	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q741	405 013 3305	TR 2SC2216(SAN)
Q742	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q751	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q761	405 039 3303	TR 2SC3114-R
	405 039 3402	TR 2SC3114-S
	405 017 1901	TR 2SC3114-T
	405 017 2106	TR 2SC3114-U
Q762	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S

Ref. No.	Part No.	Description
	405 011 8401	TR 2SC1740S-Q
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q785	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q792	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q802	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q810	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA

Ref.No.	Part No.	Description
	405 020 7907	TR 2SC945A-RA
INTEGRATED CIRCUIT		
IC101	409 185 0407	IC LA7680
IC171	409 073 1509	IC AN5265
IC451	409 173 2703	IC LA7837
IC551	409 143 3402	IC AN78M12-LB
	409 026 9507	IC L78M12-RA
	410 000 2308	IC TA78M12P(LB106)
IC701	410 081 5007	IC M34300N4-624SP
IC710	409 019 6209	IC LA7910
IC791	409 013 0104	IC HZT33
	409 026 8005	IC L5630
	409 057 5103	IC UPC574J
IC801	409 020 8704	IC LC4066B
	409 030 5809	IC MC14066B
	409 207 1900	IC MLC4066B
	409 051 3501	IC TC4066BP
	409 059 2605	IC UPD4066BC
CAPACITOR		
C100	403 069 8305	CERAMIC 0.01U Z 50V
C101	403 043 9106	ELECT 47U M 16V
C102	403 046 9905	ELECT 4.7U M 25V
C103	403 046 9905	ELECT 4.7U M 25V
C104	403 046 9905	ELECT 4.7U M 25V
C105	403 048 6308	ELECT 0.47U M 50V
C106	403 009 3407	CERAMIC 100P J 50V
C107	403 033 3602	CERAMIC 82P J 50V
C108	403 026 1103	CERAMIC 47P J 50V
C109	403 069 8305	CERAMIC 0.01U Z 50V
C110	403 027 4806	CERAMIC 5P D 50V
C111	403 069 8305	CERAMIC 0.01U Z 50V
C112	403 069 8305	CERAMIC 0.01U Z 50V
C113	403 056 9506	POLYESTER 0.01U J 50V
	403 057 0205	POLYESTER 0.01U J 50V
C114	403 049 9803	ELECT 2.2U M 50V
C115	403 048 6308	ELECT 0.47U M 50V
C116	403 059 5901	POLYESTER 0.022U K 50V
	403 059 6700	POLYESTER 0.022U K 50V
C117	403 043 6006	ELECT 330U M 16V
C118	403 027 4806	CERAMIC 5P D 50V
C121	403 028 1606	CERAMIC 56P J 50V
C127	403 043 9106	ELECT 47U M 16V
C131	403 009 3308	CERAMIC 100P J 50V
C132	403 022 5907	CERAMIC 33P J 50V
C133	403 069 0507	CERAMIC 1000P K 50V
C134	403 069 8305	CERAMIC 0.01U Z 50V
C135	403 062 0306	POLYESTER 0.047U K 50V
	403 062 1006	POLYESTER 0.047U K 50V
C141	403 022 6300	CERAMIC 33P J 50V
C144	403 017 7602	CERAMIC 22P J 50V
C155	403 069 8305	CERAMIC 0.01U Z 50V
C161	403 069 8305	CERAMIC 0.01U Z 50V
C162	403 041 8804	ELECT 10U M 16V
C163	403 041 8804	ELECT 10U M 16V
C164	403 069 8305	CERAMIC 0.01U Z 50V
C171	403 042 2405	ELECT 100U M 16V
C172	403 049 0008	ELECT 1U M 50V
C173	403 059 3600	POLYESTER 2200P K 50V
	403 059 4201	POLYESTER 2200P K 50V
C180	403 057 2803	POLYESTER 0.1U K 50V
	403 057 3701	POLYESTER 0.1U K 50V
C181	403 044 9501	ELECT 100U M 25V
C182	403 041 8804	ELECT 10U M 16V
C183	403 041 8804	ELECT 10U M 16V
C184	403 166 7706	MT-POLYEST 0.47U J 63V
	403 067 7805	MT-COMPO 0.47U J 50V
C185	403 047 5005	ELECT 470U M 25V
C186	403 069 8305	CERAMIC 0.01U Z 50V

Ref. No.	Part No.	Description			
C187	403 042 7707	ELECT	22U	M	16V
C188	403 049 9803	ELECT	2.2U	M	50V
C189	403 069 8305	CERAMIC	0.01U	Z	50V
C201	403 041 8804	ELECT	10U	M	16V
C202	403 019 7709	CERAMIC	27P	J	50V
C203	403 069 8305	CERAMIC	0.01U	Z	50V
C211	403 049 9803	ELECT	2.2U	M	50V
C221	403 069 8305	CERAMIC	0.01U	Z	50V
C222	403 042 2405	ELECT	100U	M	16V
C223	403 069 8305	CERAMIC	0.01U	Z	50V
C231	403 085 7306	NP-ELECT	10U	M	25V
C232	403 049 0008	ELECT	1U	M	50V
C233	403 041 8804	ELECT	10U	M	16V
C235	403 011 3808	CERAMIC	120P	J	50V
C236	403 069 8305	CERAMIC	0.01U	Z	50V
C251	403 030 5401	CERAMIC	68P	J	50V
C252	403 026 1103	CERAMIC	47P	J	50V
C253	403 069 8305	CERAMIC	0.01U	Z	50V
C255	403 069 8305	CERAMIC	0.01U	Z	50V
C261	403 069 8305	CERAMIC	0.01U	Z	50V
C262	403 086 2607	NP-ELECT	1U	M	50V
C263	403 069 8305	CERAMIC	0.01U	Z	50V
C264	403 069 8305	CERAMIC	0.01U	Z	50V
C265	403 048 6308	ELECT	0.47U	M	50V
C271	403 057 0403	POLYESTER	0.01U	K	50V
	403 057 1004	POLYESTER	0.01U	K	50V
C272	403 069 8305	CERAMIC	0.01U	Z	50V
C282	403 013 1901	CERAMIC	150P	J	50V
C283	403 069 8305	CERAMIC	0.01U	Z	50V
C284	403 069 8305	CERAMIC	0.01U	Z	50V
C285	403 069 8305	CERAMIC	0.01U	Z	50V
C286	403 017 7701	CERAMIC	22P	J	50V
C290	403 044 1703	ELECT	470U	M	16V
C401	403 049 9803	ELECT	2.2U	M	50V
C402	403 071 2407	CERAMIC	1800P	K	50V
C411	403 069 0507	CERAMIC	1000P	K	50V
C421	403 042 2405	ELECT	100U	M	16V
C422	403 060 8205	POLYESTER	0.033U	K	50V
	403 060 8809	POLYESTER	0.033U	K	50V
C423	403 051 0607	ELECT	4.7U	M	50V
C424	403 062 6902	POLYESTER	0.056U	K	50V
	403 062 7404	POLYESTER	0.056U	K	50V
C425	403 048 6308	ELECT	0.47U	M	50V
C431	403 062 6902	POLYESTER	0.056U	K	50V
	403 062 7404	POLYESTER	0.056U	K	50V
C432	403 075 7101	CERAMIC	1000P	K	500V
C433	403 076 3102	CERAMIC	3900P	K	500V
C434	403 054 0703	ELECT	47U	M	35V
⚠C435	404 030 3701	MT-POLYPRO	4700P	J	1.5K
	404 030 3800	MT-POLYPRO	4700P	J	1.5K
⚠C436	403 165 7707	CERAMIC	220P	J	3K
	403 078 2608	CERAMIC	220P	J	3K
C437	403 062 2201	POLYESTER	0.47U	K	50V
C441	403 082 7408	POLYPRO	0.15U	J	200V
C442	403 082 6906	POLYPRO	0.12U	J	200V
C443	403 055 3802	ELECT	4.7U	M	160V
C451	403 044 1703	ELECT	470U	M	16V
C452	403 053 3606	ELECT	2200U	M	35V
C453	403 071 5606	CERAMIC	220P	K	50V
C454	403 057 0403	POLYESTER	0.01U	K	50V
	403 057 1004	POLYESTER	0.01U	K	50V
C455	403 091 9004	TA-SOLID	1U	K	25V
C456	403 052 7308	ELECT	100U	M	35V
C458	403 034 8804	CERAMIC	10P	D	500V
C459	403 064 1301	POLYESTER	0.1U	K	100V
C461	403 049 4204	ELECT	10U	M	50V
C462	403 045 1504	ELECT	1000U	M	25V
C463	403 064 6207	POLYESTER	0.033U	K	100V
⚠C501	404 007 9903	MT-COMPO	0.1U	M	250V
C502	404 007 9903	MT-COMPO	0.1U	M	250V

Ref.No.	Part No.	Description			
C505	403 076 9203	CERAMIC	2200P	M	1K
C507	404 001 0005	ELECT	100U	M	400V
	404 031 1003	ELECT	100U	M	400V
C514	403 061 4008	POLYESTER	0.039U	K	50V
	403 061 4503	POLYESTER	0.039U	K	50V
C515	403 057 6801	POLYESTER	0.012U	J	50V
	403 057 7303	POLYESTER	0.012U	J	50V
C516	403 165 8407	CERAMIC	680P	K	2K
	403 077 9103	CERAMIC	680P	K	2K
C517	403 059 5901	POLYESTER	0.022U	K	50V
	403 059 6700	POLYESTER	0.022U	K	50V
C518	403 165 6106	CERAMIC	470P	K	1K
	403 077 0407	CERAMIC	470P	K	1K
⚠C531	404 008 4105	CERAMIC	2200P	M	400V
⚠C532	404 008 3108	CERAMIC	470P	M	400V
C551	403 165 8605	CERAMIC	470P	K	2K
	403 077 7901	CERAMIC	470P	K	2K
C554	403 165 6106	CERAMIC	470P	K	1K
	403 077 0407	CERAMIC	470P	K	1K
C561	404 042 4703	ELECT	220U	M	160V
C562	403 055 1006	ELECT	10U	M	160V
C563	403 053 6904	ELECT	330U	M	35V
C564	403 045 1504	ELECT	1000U	M	25V
C565	403 047 5005	ELECT	470U	M	25V
C700	403 039 6508	ELECT	100U	M	10V
C701	403 039 6508	ELECT	100U	M	10V
C702	403 057 2803	POLYESTER	0.1U	K	50V
C704	403 043 9106	ELECT	47U	M	16V
C705	403 057 2803	POLYESTER	0.1U	K	50V
C707	403 069 8305	CERAMIC	0.01U	Z	50V
C708	403 068 9006	CERAMIC	100P	K	50V
C709	403 069 0507	CERAMIC	1000P	K	50V
C710	403 056 7106	POLYESTER	1000P	J	50V
	403 056 7700	POLYESTER	1000P	J	50V
C711	403 072 7708	CERAMIC	330P	K	50V
C712	403 072 7708	CERAMIC	330P	K	50V
C713	403 072 7708	CERAMIC	330P	K	50V
C714	403 012 4002	CERAMIC	15P	J	50V
C715	403 017 7404	CERAMIC	22P	J	50V
C720	403 069 8305	CERAMIC	0.01U	Z	50V
C731	403 062 0306	POLYESTER	0.047U	K	50V
C741	403 069 8305	CERAMIC	0.01U	Z	50V
C760	403 041 8804	ELECT	10U	M	16V
C762	403 041 8804	ELECT	10U	M	16V
C764	403 041 8804	ELECT	10U	M	16V
C766	403 041 8804	ELECT	10U	M	16V
C768	403 041 8804	ELECT	10U	M	16V
C782	403 048 6308	ELECT	0.47U	M	50V
C783	403 048 6308	ELECT	0.47U	M	50V
C785	403 051 0607	ELECT	4.7U	M	50V
C789	403 071 1707	CERAMIC	180P	K	50V
C790	403 073 6403	CERAMIC	470P	K	50V
C801	403 043 9106	ELECT	47U	M	16V
C810	403 043 9106	ELECT	47U	M	16V
C821	403 049 0008	ELECT	1U	M	50V
C822	403 069 8305	CERAMIC	0.01U	Z	50V
RESISTER					
R100	401 024 6700	CARBON	100	JA	1/6W
R102	401 026 9907	CARBON	4.7K	JA	1/6W
R103	401 024 7004	CARBON	1K	JA	1/6W
R104	401 025 7409	CARBON	220	JA	1/6W
R105	401 025 7102	CARBON	22	JA	1/6W
R106	401 024 7004	CARBON	1K	JA	1/6W
R107	401 027 2600	CARBON	5.6K	JA	1/6W
R108	401 027 0309	CARBON	47K	JA	1/6W
R109	401 024 7707	CARBON	100K	JA	1/6W
R110	401 017 0807	CARBON	270	JA	1/4W
R111	401 026 9303	CARBON	47	JA	1/6W
R113	401 058 2501	OXIDE-MT	100	JA	1W

Ref. No.	Part No.	Description
R120	401 026 9600	CARBON 470 JA 1/6W
R122	401 024 7004	CARBON 1K JA 1/6W
R123	401 025 7409	CARBON 220 JA 1/6W
R124	401 024 7004	CARBON 1K JA 1/6W
R134	401 022 1905	CARBON 680 JA 1/4W
R137	401 026 1604	CARBON 270K JA 1/6W
R138	401 026 1604	CARBON 270K JA 1/6W
R139	401 025 8703	CARBON 220K JA 1/6W
R140	401 024 7004	CARBON 1K JA 1/6W
R155	401 024 7400	CARBON 10K JA 1/6W
R156	401 024 7004	CARBON 1K JA 1/6W
R157	401 027 0309	CARBON 47K JA 1/6W
R161	401 027 8305	CARBON 820 JA 1/6W
R162	401 027 0309	CARBON 47K JA 1/6W
R163	401 026 9907	CARBON 4.7K JA 1/6W
R164	401 025 1902	CARBON 15K JA 1/6W
⚠R171	402 002 1601	FUSIBLE RES 33 J- 1/2W
R175	401 024 9701	CARBON 12K JA 1/6W
R181	401 025 1902	CARBON 15K JA 1/6W
R183	401 025 1605	CARBON 1.5K JA 1/6W
R184	401 026 1307	CARBON 27K JA 1/6W
R185	401 024 6007	CARBON 1.5 JA 1/6W
R187	401 026 1604	CARBON 270K JA 1/6W
R188	401 027 0309	CARBON 47K JA 1/6W
R189	401 027 2303	CARBON 560 JA 1/6W
R191	401 007 7601	CARBON 150 JA 1/2W
R192	401 007 7601	CARBON 150 JA 1/2W
R200	401 024 7400	CARBON 10K JA 1/6W
R201	401 025 4200	CARBON 1.8K JA 1/6W
R202	401 025 1605	CARBON 1.5K JA 1/6W
R203	401 026 6609	CARBON 390 JA 1/6W
R204	401 026 4308	CARBON 3.3K JA 1/6W
R212	401 025 8208	CARBON 22K JA 1/6W
R217	401 024 7400	CARBON 10K JA 1/6W
R231	401 017 3808	CARBON 270K JA 1/4W
R232	401 024 7004	CARBON 1K JA 1/6W
R233	401 000 7509	SOLID 1.5K KA 1/2W
R235	401 024 7400	CARBON 10K JA 1/6W
R241	401 024 6700	CARBON 100 JA 1/6W
R242	401 009 5803	CARBON 330 JA 1/2W
R244	401 025 1902	CARBON 15K JA 1/6W
R246	401 026 9303	CARBON 47 JA 1/6W
R251	401 024 9305	CARBON 1.2K JA 1/6W
R255	401 024 7004	CARBON 1K JA 1/6W
R256	401 025 8208	CARBON 22K JA 1/6W
R261	401 026 9907	CARBON 4.7K JA 1/6W
R262	401 024 9701	CARBON 12K JA 1/6W
R263	401 025 8703	CARBON 220K JA 1/6W
R264	401 026 7606	CARBON 390K JA 1/6W
R281	401 026 6609	CARBON 390 JA 1/6W
R283	401 027 5205	CARBON 680 JA 1/6W
R284	401 027 5205	CARBON 680 JA 1/6W
R401	401 027 9005	CARBON 82K JA 1/6W
R402	401 026 0607	CARBON 270 JA 1/6W
R411	401 024 7004	CARBON 1K JA 1/6W
R412	401 009 1508	CARBON 2.7K JA 1/2W
R420	401 007 4709	CARBON 1.2K JA 1/2W
R421	401 025 1605	CARBON 1.5K JA 1/6W
R422	401 025 8703	CARBON 220K JA 1/6W
R431	401 026 3905	CARBON 330 JA 1/6W
R432	401 024 7004	CARBON 1K JA 1/6W
R433	401 007 1104	CARBON 1K JA 1/2W
R434	401 067 0000	OXIDE-MT 270 JA 2W
R435	402 055 5106	WIRE WOUND 12 KA 6W
R442	401 025 8703	CARBON 220K JA 1/6W
R443	401 058 3706	OXIDE-MT 1K JA 1W
R450	401 025 1605	CARBON 1.5K JA 1/6W
⚠R451	402 002 0307	FUSIBLE RES 15 J- 1/2W
R452	401 026 1307	CARBON 27K JA 1/6W
R453	401 027 5502	CARBON 6.8K JA 1/6W
R454	401 027 5908	CARBON 68K JA 1/6W
R455	401 026 1307	CARBON 27K JA 1/6W
R456	401 024 7004	CARBON 1K JA 1/6W
R457	401 026 8108	CARBON 4.7 JA 1/6W
R461	401 026 7002	CARBON 3.9K JA 1/6W
R462	401 025 4200	CARBON 1.8K JA 1/6W
R463	401 027 5502	CARBON 6.8K JA 1/6W
R464	401 026 0607	CARBON 270 JA 1/6W
R465	401 006 8807	CARBON 1.8 JA 1/2W
R468	401 009 5803	CARBON 330 JA 1/2W
R481	401 057 6807	OXIDE-MT 0.68 JA 1W
R501	401 008 8607	CARBON 220K JA 1/2W
R502	402 057 8204	WIRE WOUND 3.9 KA 6W
R511	401 027 2600	CARBON 5.6K JA 1/6W
R515	401 025 8208	CARBON 22K JA 1/6W
R517	401 027 2303	CARBON 560 JA 1/6W
R519	401 016 2604	CARBON 220 JA 1/4W
R520	401 000 5901	SOLID 120K KA 1/2W
R521	401 000 5901	SOLID 120K KA 1/2W
R522	401 014 5201	CARBON 15K JA 1/4W
R524	401 069 6208	OXIDE-MT 82 JA 2W
R525	401 069 1708	OXIDE-MT 68 JA 2W
R526	401 016 3304	CARBON 2.2K GA 1/4W
R531	402 000 8305	SOLID 5.6M KA 1/2W
R532	402 000 8305	SOLID 5.6M KA 1/2W
⚠R550	402 002 2004	FUSIBLE RES 4.7 J- 1/2W
R551	401 066 8007	OXIDE-MT 22K JA 2W
R552	401 012 8105	CARBON 100K JA 1/4W
R553	401 020 2003	CARBON 4.7K JA 1/4W
R554	401 014 6109	CARBON 150K JA 1/4W
R555	401 010 4307	CARBON 47K JA 1/2W
R556	401 025 8208	CARBON 22K JA 1/6W
R557	401 058 1108	OXIDE-MT 10 JA 1W
R560	401 009 6602	CARBON 3.3K JA 1/2W
⚠R562	402 002 4404	FUSIBLE RES 6.8 J- 1W
R563	401 068 6902	OXIDE-MT 56 JA 2W
R564	401 024 7400	CARBON 10K JA 1/6W
R565	401 019 1901	CARBON 3.9K JA 1/4W
R566	401 024 7400	CARBON 10K JA 1/6W
R567	401 013 5301	CARBON 1.2K JA 1/4W
⚠R569	402 037 1805	FUSIBLE RES 4.7 J- 1W
R700	401 026 3905	CARBON 330 JA 1/6W
R701	401 065 6707	OXIDE-MT 150 JA 2W
R702	401 024 7400	CARBON 10K JA 1/6W
R703	401 026 9907	CARBON 4.7K JA 1/6W
R704	401 024 7400	CARBON 10K JA 1/6W
R705	401 027 5908	CARBON 68K JA 1/6W
R706	401 027 5908	CARBON 68K JA 1/6W
R707	401 027 0309	CARBON 47K JA 1/6W
R708	401 024 7400	CARBON 10K JA 1/6W
R709	401 025 4200	CARBON 1.8K JA 1/6W
R710	401 026 7606	CARBON 390K JA 1/6W
R711	401 027 3201	CARBON 560K JA 1/6W
R712	401 024 6700	CARBON 100 JA 1/6W
R713	401 024 7400	CARBON 10K JA 1/6W
R714	401 024 7400	CARBON 10K JA 1/6W
R715	401 019 1901	CARBON 3.9K JA 1/4W
R716	401 027 0309	CARBON 47K JA 1/6W
R719	401 025 8208	CARBON 22K JA 1/6W
R721	401 025 1605	CARBON 1.5K JA 1/6W
R722	401 027 8602	CARBON 8.2K JA 1/6W
R723	401 026 9907	CARBON 4.7K JA 1/6W
R724	401 026 9600	CARBON 470 JA 1/6W
R731	401 025 8208	CARBON 22K JA 1/6W
R733	401 025 8208	CARBON 22K JA 1/6W
R734	401 027 0309	CARBON 47K JA 1/6W
R735	401 027 2600	CARBON 5.6K JA 1/6W
R736	401 025 8208	CARBON 22K JA 1/6W
R737	401 024 7400	CARBON 10K JA 1/6W
R738	401 027 2600	CARBON 5.6K JA 1/6W

Ref. No.	Part No.	Description
R739	401 026 9907	CARBON 4.7K JA 1/6W
R741	401 024 7400	CARBON 10K JA 1/6W
R742	401 026 4605	CARBON 33K JA 1/6W
R743	401 027 2600	CARBON 5.6K JA 1/6W
R744	401 024 7004	CARBON 1K JA 1/6W
R745	401 024 9008	CARBON 120 JA 1/6W
R746	401 024 9305	CARBON 1.2K JA 1/6W
R747	401 024 7004	CARBON 1K JA 1/6W
R748	401 026 3905	CARBON 330 JA 1/6W
R758	401 027 5502	CARBON 6.8K JA 1/6W
R759	401 025 8208	CARBON 22K JA 1/6W
R761	401 024 6700	CARBON 100 JA 1/6W
R762	401 027 2600	CARBON 5.6K JA 1/6W
R763	401 027 0309	CARBON 47K JA 1/6W
R764	401 025 4200	CARBON 1.8K JA 1/6W
R765	401 027 2303	CARBON 560 JA 1/6W
R766	401 027 2303	CARBON 560 JA 1/6W
R767	401 025 7805	CARBON 2.2K JA 1/6W
R768	401 025 4606	CARBON 18K JA 1/6W
R769	401 026 7408	CARBON 39K JA 1/6W
R770	401 026 9907	CARBON 4.7K JA 1/6W
R771	401 025 8208	CARBON 22K JA 1/6W
R772	401 027 0309	CARBON 47K JA 1/6W
R773	401 025 1902	CARBON 15K JA 1/6W
R774	401 025 4606	CARBON 18K JA 1/6W
R775	401 026 1307	CARBON 27K JA 1/6W
R776	401 025 4606	CARBON 18K JA 1/6W
R778	401 026 9907	CARBON 4.7K JA 1/6W
R779	401 026 7408	CARBON 39K JA 1/6W
R781	401 027 5908	CARBON 68K JA 1/6W
R785	401 027 2600	CARBON 5.6K JA 1/6W
R786	401 027 2600	CARBON 5.6K JA 1/6W
R787	401 027 2600	CARBON 5.6K JA 1/6W
R788	401 025 8208	CARBON 22K JA 1/6W
R789	401 026 1307	CARBON 27K JA 1/6W
R790	401 026 4605	CARBON 33K JA 1/6W
R791	401 025 8208	CARBON 22K JA 1/6W
R793	401 025 8208	CARBON 22K JA 1/6W
R794	401 025 7409	CARBON 220 JA 1/6W
R795	401 064 9907	OXIDE-MT 10K JA 2W
R796	401 026 9600	CARBON 470 JA 1/6W
R798	401 027 2600	CARBON 5.6K JA 1/6W
R801	401 023 0709	CARBON 82 JA 1/4W
R802	401 024 6700	CARBON 100 JA 1/6W
R806	401 027 8602	CARBON 8.2K JA 1/6W
R807	401 027 5502	CARBON 6.8K JA 1/6W
R808	401 024 7004	CARBON 1K JA 1/6W
R810	401 025 8208	CARBON 22K JA 1/6W
R811	401 027 2600	CARBON 5.6K JA 1/6W
R812	401 024 6700	CARBON 100 JA 1/6W
R821	401 024 7707	CARBON 100K JA 1/6W
R822	401 024 7004	CARBON 1K JA 1/6W
VARIABLE RESISTER		
VR101	610 019 3413	VR B-10K
	610 019 3901	VR B-10K
VR121	610 019 3338	VR B-1K
	610 019 3864	VR B-1K
VR211	610 019 3932	VR B-50K
VR281	610 019 3864	VR B-1K
VR411	610 019 3451	VR B-20K
	610 019 3918	VR B-20K
VR451	610 019 3512	VR B-100K
	610 019 3949	VR B-100K
VR551	610 019 3352	VR B-2K
	610 019 3871	VR B-2K
VR710	610 019 3888	VR B-3K
TRANSFORMER		
T101	610 037 5727	S TRANS
T102	610 037 7103	S TRANS
T103	610 213 4551	S TRANS
T121	610 037 4522	S COIL
T131	610 037 6557	S TRANS
	610 037 6564	S TRANS
T281	610 037 7028	S TRANS
T431	610 000 1060	DRIVE TRANS
	610 000 1053	DRIVE TRANS
⚠T471	610 017 9974	FBT
⚠T511	610 216 4534	CONVERTER TRANS
COIL		
L121	610 031 3958	PEAKING COIL
L131	610 031 3958	PEAKING COIL
L141	610 031 3958	PEAKING COIL
L161	610 031 3958	PEAKING COIL
L191	610 032 4381	FILTER COIL
L192	610 032 4381	FILTER COIL
	610 032 4404	FILTER COIL
L201	610 030 0903	DELAY LINE
L211	610 037 4546	S COIL
L221	610 029 5926	PEAKING COIL 10UH K
	610 210 3366	PEAKING COIL 10UHK
	610 029 8125	PEAKING COIL 10UH K
L251	610 031 4177	PEAKING COIL
L281	610 031 4290	PEAKING COIL 8.2UHK
L282	610 032 6699	1H DELAYLINE
	610 032 6705	1H DELAYLINE
L283	610 031 4603	PEAKING COIL
L451	610 031 3156	PEAKING COIL
	610 210 3809	PEAKING COIL 18UHK
⚠L501	610 212 6013	LINE FILTER
⚠L502	610 031 5945	LINE FILTER
	610 031 5969	LINE FILTER
	610 213 9563	LINE FILTER
L503	610 031 5945	LINE FILTER
	610 031 5969	LINE FILTER
	610 213 9563	LINE FILTER
L700	610 029 5926	PEAKING COIL 10UH K
	610 210 3366	PEAKING COIL 10UHK
	610 029 8125	PEAKING COIL 10UH K
L701	610 031 4504	PEAKING COIL
L781	610 031 3873	PEAKING COIL 10UHK
L821	610 029 5926	PEAKING COIL 10UH K
	610 029 8125	PEAKING COIL 10UH K
DIODE		
D110	407 048 5606	ZENER DIODE EQA02-10A
D231	407 005 4505	DIODE DS442X
	407 013 1008	DIODE 1S1553
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D241	407 075 9905	ZENER DIODE EQA03-11A
D242	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D243	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D255	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D411	407 048 5606	ZENER DIODE EQA02-10A
	407 048 5804	ZENER DIODE EQA02-10B

Ref. No.	Part No.	Description
D441	407 006 3903	DIODE ERB43-04
	407 011 4407	DIODE TVR1G
D451	407 005 7308	DIODE EM01Z
	407 006 1008	DIODE ERB12-02RK
	408 009 9008	DIODE BYD33D
D452	407 007 7801	DIODE EU2Z
	408 009 9305	DIODE BYD33G
	407 013 1909	DIODE 1S1834
D505	407 006 6300	DIODE ERC05-10B
	407 009 6901	DIODE RM11C
	407 064 6908	DIODE TVR4N(X)
D514	407 005 4505	DIODE DS442X
	407 013 1008	DIODE 1S1553
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D515	407 105 8700	PHOTO COUPLE PC113B
	408 009 8407	PHOTO COUPLE CNY17GF-3
D516	407 005 4505	DIODE DS442X
	407 013 1008	DIODE 1S1553
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D517	407 007 6606	DIODE ES1
	407 007 6903	DIODE ES1Z
	408 009 9008	DIODE BYD33D
D551	407 007 7702	DIODE EU2A
	408 009 9206	DIODE BYD33J
	407 064 7004	DIODE 1S1835
D553	407 007 6606	DIODE ES1
	408 009 9305	DIODE BYD33G
	407 013 1909	DIODE 1S1834
D554	407 007 7801	DIODE EU2Z
	408 009 9305	DIODE BYD33G
	407 013 1909	DIODE 1S1834
D555	407 007 6606	DIODE ES1
	408 009 9305	DIODE BYD33G
	407 013 1909	DIODE 1S1834
D561	407 048 2407	ZENER DIODE EQA02-06E
	407 048 2605	ZENER DIODE EQA02-06F
D562	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D701	407 048 1103	ZENER DIODE EQA02-05D
	407 048 1202	ZENER DIODE EQA02-05E
D702	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D704	407 029 1207	LED SLP-177B-60
	408 009 3808	LED SLC-26VR5F
D711	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D712	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D721	407 055 7907	ZENER DIODE RD3. 6EL
D731	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D741	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D781	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D792	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D801	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
MISCELLANEUS		
⚠F501	423 006 4801	FUSE 250V 2. 5A
	423 006 4702	FUSE 250V 2. 5A
F501-A1	610 012 4356	FUSE CLIP
	610 212 8543	FUSE CLIP
F501-A2	610 012 4356	FUSE CLIP
	610 212 8543	FUSE CLIP
TH710	407 015 0405	THERMISTOR SDT-35-CTV
A101	610 217 7107	UV VARACTOR TUNER
A701	610 214 4833	RC PREAMP 409-1A/1B/1F
IC451-1	411 036 3208	SCR PAN+SW+W 3X10
IC451-2	411 054 7103	NUT HEX 3
IC551-1	610 219 1189	HEAT SINK-E2HV
IC551-2	610 014 5818	WASHER
IC551-3	411 023 9305	SCR S-TPG PAN 3X7
Q432-1	610 216 5050	HOR & VERT HEAT SINK-E2HA
Q432-2	610 080 3145	WASHER TO-3PM
Q432-3	411 045 2803	SCR PAN+SW 3X12
Q432-4	411 054 7103	NUT HEX 3
Q432-7	412 031 0605	SPECIAL SCREW
Q513-1	610 216 5043	POWER HEAT SINK-E2HA
Q513-2	610 080 3145	WASHER TO-3PM
Q513-3	411 045 2803	SCR PAN+SW 3X12
Q513-4	411 054 7103	NUT HEX 3
Q513-7	412 031 0605	SPECIAL SCREW
KDY1P	610 014 3364	M/C TERMINAL PLUG
KDY2P	610 014 3364	M/C TERMINAL PLUG
KDY3P	610 014 3364	M/C TERMINAL PLUG
KDY4P	610 014 3364	M/C TERMINAL PLUG
KE1P	610 014 3364	M/C TERMINAL PLUG
KE2P	610 014 3364	M/C TERMINAL PLUG
KP	610 012 3380	WIRE HOLDER 6P
KQ	610 012 3342	WIRE HOLDER 4P
KSCP	610 014 3364	M/C TERMINAL PLUG
KW	610 010 7960	HOUSING PLUG 2P
K171	610 212 6334	PHONE JACK
K801	610 010 8820	RCA JACK 1P
K821	610 010 8813	RCA JACK 1P
PS501	408 003 6805	THERMISTOR 902P44E180MR14
	408 000 3906	TH PTH451A13BG180M270
SW251	610 011 2728	LEVER SWITCH
⚠SW501	610 218 9162	PUSH SWITCH
SW701	610 011 2698	PUSH SWITCH
SW702	610 011 2698	PUSH SWITCH
SW703	610 011 2698	PUSH SWITCH
SW704	610 011 2698	PUSH SWITCH
SW705-10	610 011 4463	PUSH SWITCH
SW712	610 011 4432	PUSH SWITCH
SW713	610 011 4432	PUSH SWITCH
X101	421 002 7703	SAW F TSF1337L
X121	610 015 2854	CERAMIC FILTER

Ref. No.	Part No.	Description
X122	610 015 3011	CERAMIC FILTER
X143	610 015 2878	CERAMIC FILTER
X161	610 216 7245	CERAMIC FILTER
X201	610 012 0495	CRYSTAL OSCILLATOR
	610 012 0501	CRYSTAL OSCILLATOR
	610 204 4188	CRYSTAL OSCILLATOR
	610 012 0525	CRYSTAL OSCILLATOR
X251	610 012 2222	CERAMIC TRAP
	610 226 6894	CERAMIC TRAP
X421	610 216 6149	CERAMIC OSCILLATOR
X701	610 012 2857	CERAMIC OSCILLATOR
	610 212 8765	CERAMIC OSCILLATOR
OUT OF CIRCUIT BOARD		
PICTURE TUBE		
⚠Q901	413 007 1008	CRT A34JRH61X
Q901-1	610 003 1722	CG PURITY MAGNET
	610 004 3008	CG PURITY MAGNET
COIL		
⚠L901	610 225 3535	DEGAUSSING COIL
	610 225 3542	DEGAUSSING COIL
	610 225 3559	DEGAUSSING COIL
⚠L902	610 224 5790	DEFLECTION YOKE
MISCELLANEUS		
KFO-1	610 212 6341	TERMINAL SOCKET
KSCS	610 013 9442	MINI CONNECTOR 1P-SOCKET
KSCS-1	610 013 9404	M/C TERMINAL SOCKET
KWS	610 010 8059	HOUSING 2P
KWS1	610 010 8141	TERMINAL SOCKET
KWS2	610 010 8141	TERMINAL SOCKET
K6PS	610 012 3380	WIRE HOLDER 6P
K6QS	610 012 3342	WIRE HOLDER 4P
SP901	610 215 6089	SPEAKER
	610 211 7936	SPEAKER
	610 211 7943	SPEAKER
⚠W901	610 011 7099	AC CORD
	610 011 9734	AC CORD
	610 011 9765	AC CORD
W902	610 024 2159	GROUNDING CONNECTOR

Ref.No.	Part No.	Description

Repair Parts List MODEL CEP3012PSD

E2HYY

Rroduct safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a ⚠ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

Note: Part order must contain Service Ref. No., Part Ref. No., Part No., and description.

Ref. No.	Part No.	Description
	610 218 1654	CRT UNIT-E2HR UE2095
TRANSISTER		
Q601	405 040 5600	TR 2SC2228-D
	405 029 6901	TR 2SC2228-E
	406 000 5104	TR 2SC2229-0(SAN-2)
	406 000 5203	TR 2SC2229-Y(SAN-2)
Q611	405 040 5600	TR 2SC2228-D
	405 029 6901	TR 2SC2228-E
	406 000 5104	TR 2SC2229-0(SAN-2)
	406 000 5203	TR 2SC2229-Y(SAN-2)
Q621	405 040 5600	TR 2SC2228-D
	405 029 6901	TR 2SC2228-E
	406 000 5104	TR 2SC2229-0(SAN-2)
	406 000 5203	TR 2SC2229-Y(SAN-2)
Q641	405 040 5600	TR 2SC2228-D
	405 029 6901	TR 2SC2228-E
	406 000 5104	TR 2SC2229-0(SAN-2)
	406 000 5203	TR 2SC2229-Y(SAN-2)
CAPACITOR		
C601	403 071 5606	CERAMIC 220P K 50V
C602	403 073 6403	CERAMIC 470P K 50V
C611	403 071 5606	CERAMIC 220P K 50V
C612	403 073 6403	CERAMIC 470P K 50V
C621	403 071 5606	CERAMIC 220P K 50V
C622	403 074 5702	CERAMIC 560P K 50V
C631	403 077 2708	CERAMIC 1000P P 2K
C632	403 077 2708	CERAMIC 1000P P 2K
C633	403 076 7100	CERAMIC 1000P M 1K
C642	403 024 0009	CERAMIC 39P J 50V
RESISTER		
R601	401 065 4604	OXIDE-MT 12K JA 2W
R602	401 002 0102	SOLID 3.3K KA 1/2W
R603	401 014 2903	CARBON 150 JA 1/4W
R611	401 065 4604	OXIDE-MT 12K JA 2W
R612	401 002 0102	SOLID 3.3K KA 1/2W
R613	401 014 2903	CARBON 150 JA 1/4W
R621	401 065 4604	OXIDE-MT 12K JA 2W
R622	401 002 0102	SOLID 3.3K KA 1/2W
R623	401 014 2903	CARBON 150 JA 1/4W
R624	401 017 0807	CARBON 270 JA 1/4W
R631	401 001 7607	SOLID 270K KA 1/2W
R632	401 018 1605	CARBON 33 JA 1/4W
R642	401 012 5708	CARBON 1K JA 1/4W
VARIABLE RESISTER		
VR601	610 019 0108	VR B-5K
VR602	610 018 9164	VR B-500
VR611	610 019 0108	VR B-5K
VR612	610 018 9164	VR B-500
VR621	610 019 0108	VR B-5K
COIL		
L633	610 032 4381	FILTER COIL
	610 032 4404	FILTER COIL
MISCELLANEUS		
KTP6A	610 014 3364	M/C TERMINAL PLUG
KTP6B	610 014 3364	M/C TERMINAL PLUG
KTP6E	610 014 3364	M/C TERMINAL PLUG
K6M	610 014 3364	M/C TERMINAL PLUG
K601	610 010 4938	CRT SOCKET
	610 223 6637	MAIN UNIT -E2HY-A UE2267A
TRANSISTER		
Q101	405 014 9207	TR 2SC2570A
Q110	405 023 4903	TR 2SD400-D-MP
	405 023 5009	TR 2SD400-E-MP
	405 023 5306	TR 2SD400-F-MP
Q124	406 000 6804	TR 2SA1015-GR(SAN)
	405 001 7407	TR 2SA1015-0(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
	405 004 3109	TR 2SA564A-Q(CU)
	405 004 3208	TR 2SA564A-R(CU)
	405 004 4205	TR 2SA608-E-CTV-NP
	405 004 4809	TR 2SA608-F-CTV-NP
	405 006 1103	TR 2SA933-Q
	405 006 1202	TR 2SA933-R
	405 006 1707	TR 2SA933S-Q
	405 006 1806	TR 2SA933S-R
Q181	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-0
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q241	405 001 7407	TR 2SA1015-0(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
Q301	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-0
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA

Ref. No.	Part No.	Description
Q341	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q351	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q357	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q431	405 014 2406	TR 2SC2383-O(SAN)
	405 014 2505	TR 2SC2383-R(SAN)
Q432	405 022 6601	TR 2SD1649-CTV-YB
Q511	406 000 6804	TR 2SA1015-GR(SAN)
	405 001 7407	TR 2SA1015-O(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
	405 004 3109	TR 2SA564A-Q(CU)
	405 004 3208	TR 2SA564A-R(CU)
	405 004 4205	TR 2SA608-E-CTV-NP
	405 004 4809	TR 2SA608-F-CTV-NP
	405 006 1103	TR 2SA933-Q
	405 006 1202	TR 2SA933-R
	405 006 1707	TR 2SA933S-Q
	405 006 1806	TR 2SA933S-R
Q512	405 058 0208	TR 2SC3807-R-CTV-YA
Q513	405 022 8506	TR 2SD1710-CTV-YB
Q551	405 008 4805	TR 2SB764-E
Q552	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q553	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q554	405 008 4805	TR 2SB764-E
Q701	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q721	406 000 6804	TR 2SA1015-GR(SAN)
	405 001 7407	TR 2SA1015-O(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
	405 004 3109	TR 2SA564A-Q(CU)
	405 004 3208	TR 2SA564A-R(CU)
	405 004 4205	TR 2SA608-E-CTV-NP
	405 004 4809	TR 2SA608-F-CTV-NP
	405 006 1103	TR 2SA933-Q
	405 006 1202	TR 2SA933-R
	405 006 1707	TR 2SA933S-Q
	405 006 1806	TR 2SA933S-R
Q731	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q732	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S

Ref. No.	Part No.	Description
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q733	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q741	405 013 3305	TR 2SC2216(SAN)
Q742	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q751	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q761	405 039 3303	TR 2SC3114-R
	405 039 3402	TR 2SC3114-S
	405 017 1901	TR 2SC3114-T
	405 017 2106	TR 2SC3114-U
Q762	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q785	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q792	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q802	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q810	405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
INTEGRATED CIRCUIT		
IC101	409 185 0308	IC LA7681
IC171	409 073 1509	IC AN5265
IC301	409 000 9707	IC AN5635N-A
IC351	409 019 6209	IC LA7910
IC451	409 173 2703	IC LA7837

Ref. No.	Part No.	Description
IC551	409 143 3402	IC AN78M12-LB
	409 026 9507	IC L78M12-RA
	410 000 2308	IC TA78M12P(LB106)
IC701	410 081 5007	IC M34300N4-624SP
IC710	409 019 6209	IC LA7910
IC791	409 013 0104	IC HZT33
	409 026 8005	IC L5630
	409 057 5103	IC UPC574J
IC801	409 020 8704	IC LC4066B
	409 030 5809	IC MC14066B
	409 207 1900	IC MLC4066B
	409 051 3501	IC TC4066BP
	409 059 2605	IC UPD4066BC
CAPACITOR		
C100	403 069 8305	CERAMIC 0.01U Z 50V
C101	403 043 9106	ELECT 47U M 16V
C102	403 046 9905	ELECT 4.7U M 25V
C103	403 046 9905	ELECT 4.7U M 25V
C104	403 046 9905	ELECT 4.7U M 25V
C105	403 048 6308	ELECT 0.47U M 50V
C106	403 009 3407	CERAMIC 100P J 50V
C107	403 033 3602	CERAMIC 82P J 50V
C108	403 026 1103	CERAMIC 47P J 50V
C109	403 069 8305	CERAMIC 0.01U Z 50V
C110	403 027 4806	CERAMIC 5P D 50V
C111	403 069 8305	CERAMIC 0.01U Z 50V
C112	403 069 8305	CERAMIC 0.01U Z 50V
C113	403 056 9506	POLYESTER 0.01U J 50V
	403 057 0205	POLYESTER 0.01U J 50V
C114	403 049 9803	ELECT 2.2U M 50V
C115	403 048 6308	ELECT 0.47U M 50V
C116	403 059 5901	POLYESTER 0.022U K 50V
	403 059 6700	POLYESTER 0.022U K 50V
C117	403 043 6006	ELECT 330U M 16V
C118	403 027 4806	CERAMIC 5P D 50V
C121	403 028 1606	CERAMIC 56P J 50V
C127	403 043 9106	ELECT 47U M 16V
C131	403 009 3308	CERAMIC 100P J 50V
C132	403 022 5907	CERAMIC 33P J 50V
C133	403 069 0507	CERAMIC 1000P K 50V
C134	403 069 8305	CERAMIC 0.01U Z 50V
C135	403 062 0306	POLYESTER 0.047U K 50V
	403 062 1006	POLYESTER 0.047U K 50V
C141	403 022 6300	CERAMIC 33P J 50V
C144	403 017 7602	CERAMIC 22P J 50V
C155	403 069 8305	CERAMIC 0.01U Z 50V
C161	403 069 8305	CERAMIC 0.01U Z 50V
C162	403 041 8804	ELECT 10U M 16V
C163	403 041 8804	ELECT 10U M 16V
C164	403 069 8305	CERAMIC 0.01U Z 50V
C171	403 042 2405	ELECT 100U M 16V
C172	403 049 0008	ELECT 1U M 50V
C173	403 059 3600	POLYESTER 2200P K 50V
	403 059 4201	POLYESTER 2200P K 50V
C180	403 057 2803	POLYESTER 0.1U K 50V
	403 057 3701	POLYESTER 0.1U K 50V
C181	403 044 9501	ELECT 100U M 25V
C182	403 041 8804	ELECT 10U M 16V
C183	403 041 8804	ELECT 10U M 16V
C184	403 166 7706	MT-POLYEST 0.47U J 63V
	403 067 7805	MT-COMPO 0.47U J 50V
C185	403 047 5005	ELECT 470U M 25V
C186	403 069 8305	CERAMIC 0.01U Z 50V
C187	403 042 7707	ELECT 22U M 16V
C188	403 049 9803	ELECT 2.2U M 50V
C189	403 069 8305	CERAMIC 0.01U Z 50V
C201	403 041 8804	ELECT 10U M 16V
C202	403 019 7709	CERAMIC 27P J 50V
C203	403 069 8305	CERAMIC 0.01U Z 50V

Ref.No.	Part No.	Description
C211	403 049 9803	ELECT 2.2U M 50V
C221	403 069 8305	CERAMIC 0.01U Z 50V
C222	403 042 2405	ELECT 100U M 16V
C223	403 069 8305	CERAMIC 0.01U Z 50V
C231	403 085 7306	NP-ELECT 10U M 25V
C232	403 049 0008	ELECT 1U M 50V
C233	403 041 8804	ELECT 10U M 16V
C235	403 011 3808	CERAMIC 120P J 50V
C236	403 069 8305	CERAMIC 0.01U Z 50V
C251	403 030 5401	CERAMIC 68P J 50V
C252	403 026 1103	CERAMIC 47P J 50V
C253	403 069 8305	CERAMIC 0.01U Z 50V
C255	403 069 8305	CERAMIC 0.01U Z 50V
C261	403 069 8305	CERAMIC 0.01U Z 50V
C262	403 086 2607	NP-ELECT 1U M 50V
C263	403 069 8305	CERAMIC 0.01U Z 50V
C264	403 069 8305	CERAMIC 0.01U Z 50V
C265	403 048 6308	ELECT 0.47U M 50V
C271	403 057 0403	POLYESTER 0.01U K 50V
	403 057 1004	POLYESTER 0.01U K 50V
C272	403 069 8305	CERAMIC 0.01U Z 50V
C282	403 013 1901	CERAMIC 150P J 50V
C283	403 069 8305	CERAMIC 0.01U Z 50V
C284	403 069 8305	CERAMIC 0.01U Z 50V
C285	403 069 8305	CERAMIC 0.01U Z 50V
C286	403 017 7701	CERAMIC 22P J 50V
C290	403 044 1703	ELECT 470U M 16V
C300	403 061 4008	POLYESTER 0.039U K 50V
	403 061 4503	POLYESTER 0.039U K 50V
C301	403 043 6006	ELECT 330U M 16V
C302	403 057 2803	POLYESTER 0.1U K 50V
C303	403 019 7709	CERAMIC 27P J 50V
C304	403 022 6300	CERAMIC 33P J 50V
C305	403 069 8305	CERAMIC 0.01U Z 50V
C306	403 020 5008	CERAMIC 270P J 50V
C307	403 030 5401	CERAMIC 68P J 50V
C308	403 069 8305	CERAMIC 0.01U Z 50V
C309	403 069 8305	CERAMIC 0.01U Z 50V
C310	403 009 3407	CERAMIC 100P J 50V
C311	403 033 8706	CERAMIC 820P J 50V
C312	403 049 0008	ELECT 1U M 50V
C313	403 069 8305	CERAMIC 0.01U Z 50V
C314	403 069 8305	CERAMIC 0.01U Z 50V
C315	403 033 3602	CERAMIC 82P J 50V
C316	403 071 5606	CERAMIC 220P K 50V
C318	403 049 0008	ELECT 1U M 50V
C319	403 049 0008	ELECT 1U M 50V
C321	403 041 8804	ELECT 10U M 16V
C322	403 041 8804	ELECT 10U M 16V
C325	403 041 8804	ELECT 10U M 16V
C326	403 041 8804	ELECT 10U M 16V
C331	403 026 1103	CERAMIC 47P J 50V
C332	403 069 8305	CERAMIC 0.01U Z 50V
C333	403 069 8305	CERAMIC 0.01U Z 50V
C334	403 028 2009	CERAMIC 56P J 50V
C335	403 070 7403	CERAMIC 150P K 50V
C336	403 014 0408	CERAMIC 18P J 50V
C337	403 069 8305	CERAMIC 0.01U Z 50V
C338	403 033 3602	CERAMIC 82P J 50V
C339	403 023 9706	CERAMIC 39P J 50V
C341	403 069 8305	CERAMIC 0.01U Z 50V
C342	403 069 8305	CERAMIC 0.01U Z 50V
C351	403 046 9905	ELECT 4.7U M 25V
C352	403 046 9905	ELECT 4.7U M 25V
C401	403 049 9803	ELECT 2.2U M 50V
C402	403 071 2407	CERAMIC 1800P K 50V
C411	403 069 0507	CERAMIC 1000P K 50V
C421	403 042 2405	ELECT 100U M 16V
C422	403 060 8205	POLYESTER 0.033U K 50V
	403 060 8809	POLYESTER 0.033U K 50V

Ref. No.	Part No.	Description
C423	403 051 0607	ELECT 4.7U M 50V
C424	403 062 6902	POLYESTER 0.056U K 50V
	403 062 7404	POLYESTER 0.056U K 50V
C425	403 048 6308	ELECT 0.47U M 50V
C431	403 062 6902	POLYESTER 0.056U K 50V
	403 062 7404	POLYESTER 0.056U K 50V
C432	403 075 7101	CERAMIC 1000P K 500V
C433	403 076 3102	CERAMIC 3900P K 500V
C434	403 054 0703	ELECT 47U M 35V
⚠C435	404 030 3701	MT-POLYPRO 4700P J 1.5K
	404 030 3800	MT-POLYPRO 4700P J 1.5K
⚠C436	403 165 7707	CERAMIC 220P J 3K
	403 078 2608	CERAMIC 220P J 3K
C437	403 062 2201	POLYESTER 0.47U K 50V
C441	403 082 7408	POLYPRO 0.15U J 200V
C442	403 082 6906	POLYPRO 0.12U J 200V
C443	403 055 3802	ELECT 4.7U M 160V
C451	403 044 1703	ELECT 470U M 16V
C452	403 053 3606	ELECT 2200U M 35V
C453	403 071 5606	CERAMIC 220P K 50V
C454	403 057 0403	POLYESTER 0.01U K 50V
	403 057 1004	POLYESTER 0.01U K 50V
C455	403 091 9004	TA-SOLID 1U K 25V
C456	403 052 7308	ELECT 100U M 35V
C458	403 034 8804	CERAMIC 10P D 500V
C459	403 064 1301	POLYESTER 0.1U K 100V
C461	403 049 4204	ELECT 10U M 50V
C462	403 045 1504	ELECT 1000U M 25V
C463	403 064 6207	POLYESTER 0.033U K 100V
C491	403 059 5901	POLYESTER 0.022U K 50V
	403 059 6700	POLYESTER 0.022U K 50V
C492	403 057 0403	POLYESTER 0.01U K 50V
	403 057 1004	POLYESTER 0.01U K 50V
C493	403 046 1602	ELECT 3.3U M 25V
⚠C501	404 007 9903	MT-COMPO 0.1U M 250V
C502	404 007 9903	MT-COMPO 0.1U M 250V
C505	403 076 9203	CERAMIC 2200P M 1K
C507	404 001 0005	ELECT 100U M 400V
	404 031 1003	ELECT 100U M 400V
C514	403 061 4008	POLYESTER 0.039U K 50V
	403 061 4503	POLYESTER 0.039U K 50V
C515	403 057 6801	POLYESTER 0.012U J 50V
	403 057 7303	POLYESTER 0.012U J 50V
C516	403 165 8407	CERAMIC 680P K 2K
	403 077 9103	CERAMIC 680P K 2K
C517	403 059 5901	POLYESTER 0.022U K 50V
	403 059 6700	POLYESTER 0.022U K 50V
C518	403 165 6106	CERAMIC 470P K 1K
	403 077 0407	CERAMIC 470P K 1K
⚠C531	404 008 4105	CERAMIC 2200P M 400V
⚠C532	404 008 3108	CERAMIC 470P M 400V
C551	403 165 8605	CERAMIC 470P K 2K
	403 077 7901	CERAMIC 470P K 2K
C554	403 165 6106	CERAMIC 470P K 1K
	403 077 0407	CERAMIC 470P K 1K
C561	404 042 4703	ELECT 220U M 160V
C562	403 055 1006	ELECT 10U M 160V
C563	403 053 6904	ELECT 330U M 35V
C564	403 045 1504	ELECT 1000U M 25V
C565	403 047 5005	ELECT 470U M 25V
C700	403 039 6508	ELECT 100U M 10V
C701	403 040 9406	ELECT 330U M 10V
C702	403 057 2803	POLYESTER 0.1U K 50V
C704	403 043 9106	ELECT 47U M 16V
C705	403 057 2803	POLYESTER 0.1U K 50V
C707	403 069 8305	CERAMIC 0.01U Z 50V
C708	403 068 9006	CERAMIC 100P K 50V
C709	403 069 0507	CERAMIC 1000P K 50V
C710	403 056 7106	POLYESTER 1000P J 50V
	403 056 7700	POLYESTER 1000P J 50V

Ref.No.	Part No.	Description
C711	403 072 7708	CERAMIC 330P K 50V
C712	403 072 7708	CERAMIC 330P K 50V
C713	403 072 7708	CERAMIC 330P K 50V
C714	403 012 4002	CERAMIC 15P J 50V
C715	403 017 7404	CERAMIC 22P J 50V
C720	403 069 8305	CERAMIC 0.01U Z 50V
C731	403 062 0306	POLYESTER 0.047U K 50V
C741	403 069 8305	CERAMIC 0.01U Z 50V
C760	403 041 8804	ELECT 10U M 16V
C761	403 030 5104	CERAMIC 68P J 50V
C762	403 041 8804	ELECT 10U M 16V
C763	403 033 3305	CERAMIC 82P J 50V
C764	403 041 8804	ELECT 10U M 16V
C766	403 041 8804	ELECT 10U M 16V
C767	403 019 7402	CERAMIC 27P J 50V
C768	403 041 8804	ELECT 10U M 16V
C782	403 048 6308	ELECT 0.47U M 50V
C783	403 048 6308	ELECT 0.47U M 50V
C785	403 051 0607	ELECT 4.7U M 50V
C789	403 071 1707	CERAMIC 180P K 50V
C790	403 073 6403	CERAMIC 470P K 50V
C801	403 043 9106	ELECT 47U M 16V
C802	403 074 5702	CERAMIC 560P K 50V
C810	403 043 9106	ELECT 47U M 16V
C821	403 049 0008	ELECT 1U M 50V
C822	403 069 8305	CERAMIC 0.01U Z 50V
RESISTER		
R100	401 024 6700	CARBON 100 JA 1/6W
R102	401 026 9907	CARBON 4.7K JA 1/6W
R103	401 024 7004	CARBON 1K JA 1/6W
R104	401 025 7409	CARBON 220 JA 1/6W
R105	401 025 7102	CARBON 22 JA 1/6W
R106	401 024 7004	CARBON 1K JA 1/6W
R107	401 027 2600	CARBON 5.6K JA 1/6W
R108	401 027 0309	CARBON 47K JA 1/6W
R109	401 024 7707	CARBON 100K JA 1/6W
R110	401 017 0807	CARBON 270 JA 1/4W
R111	401 026 9303	CARBON 47 JA 1/6W
R113	401 058 2501	OXIDE-MT 100 JA 1W
R120	401 026 9600	CARBON 470 JA 1/6W
R122	401 024 7004	CARBON 1K JA 1/6W
R123	401 025 7409	CARBON 220 JA 1/6W
R124	401 024 7004	CARBON 1K JA 1/6W
R134	401 022 1905	CARBON 680 JA 1/4W
R137	401 026 1604	CARBON 270K JA 1/6W
R138	401 026 1604	CARBON 270K JA 1/6W
R139	401 025 8703	CARBON 220K JA 1/6W
R140	401 024 7004	CARBON 1K JA 1/6W
R155	401 024 7400	CARBON 10K JA 1/6W
R156	401 024 7004	CARBON 1K JA 1/6W
R157	401 027 0309	CARBON 47K JA 1/6W
R161	401 027 8305	CARBON 820 JA 1/6W
R162	401 027 0309	CARBON 47K JA 1/6W
R163	401 026 9907	CARBON 4.7K JA 1/6W
R164	401 025 1902	CARBON 15K JA 1/6W
⚠R171	402 002 1601	FUSIBLE RES 33 J- 1/2W
R175	401 024 9701	CARBON 12K JA 1/6W
R181	401 025 1902	CARBON 15K JA 1/6W
R183	401 025 1605	CARBON 1.5K JA 1/6W
R184	401 026 1307	CARBON 27K JA 1/6W
R185	401 024 6007	CARBON 1.5 JA 1/6W
R187	401 026 1604	CARBON 270K JA 1/6W
R188	401 027 0309	CARBON 47K JA 1/6W
R189	401 027 2303	CARBON 560 JA 1/6W
R191	401 007 7601	CARBON 150 JA 1/2W
R192	401 007 7601	CARBON 150 JA 1/2W
R200	401 024 7400	CARBON 10K JA 1/6W
R201	401 025 4200	CARBON 1.8K JA 1/6W
R202	401 025 1605	CARBON 1.5K JA 1/6W

Ref. No.	Part No.	Description
R203	401 026 6609	CARBON 390 JA 1/6W
R204	401 026 4308	CARBON 3.3K JA 1/6W
R212	401 025 8208	CARBON 22K JA 1/6W
R215	401 024 7400	CARBON 10K JA 1/6W
R216	401 027 8602	CARBON 8.2K JA 1/6W
R217	401 024 7400	CARBON 10K JA 1/6W
R231	401 017 3808	CARBON 270K JA 1/4W
R232	401 024 7004	CARBON 1K JA 1/6W
R233	401 000 7509	SOLID 1.5K KA 1/2W
R235	401 024 7400	CARBON 10K JA 1/6W
R241	401 024 6700	CARBON 100 JA 1/6W
R242	401 009 5803	CARBON 330 JA 1/2W
R244	401 025 1902	CARBON 15K JA 1/6W
R246	401 027 8107	CARBON 82 JA 1/6W
R251	401 024 9305	CARBON 1.2K JA 1/6W
R255	401 024 7004	CARBON 1K JA 1/6W
R256	401 025 8208	CARBON 22K JA 1/6W
R261	401 026 9907	CARBON 4.7K JA 1/6W
R262	401 024 9701	CARBON 12K JA 1/6W
R263	401 025 8703	CARBON 220K JA 1/6W
R264	401 026 7606	CARBON 390K JA 1/6W
R281	401 026 6609	CARBON 390 JA 1/6W
R283	401 027 5205	CARBON 680 JA 1/6W
R284	401 027 2303	CARBON 560 JA 1/6W
R285	401 024 9008	CARBON 120 JA 1/6W
R300	401 027 2600	CARBON 5.6K JA 1/6W
R301	401 026 1307	CARBON 27K JA 1/6W
R302	401 026 4605	CARBON 33K JA 1/6W
R303	401 024 7004	CARBON 1K JA 1/6W
R304	401 025 7409	CARBON 220 JA 1/6W
R305	401 026 9907	CARBON 4.7K JA 1/6W
R306	401 026 1000	CARBON 2.7K JA 1/6W
R307	401 027 3003	CARBON 56K JA 1/6W
R308	401 026 1604	CARBON 270K JA 1/6W
R309	401 025 8703	CARBON 220K JA 1/6W
R314	401 025 7805	CARBON 2.2K JA 1/6W
R321	401 024 9305	CARBON 1.2K JA 1/6W
R322	401 025 7805	CARBON 2.2K JA 1/6W
R323	401 024 9305	CARBON 1.2K JA 1/6W
R324	401 025 7805	CARBON 2.2K JA 1/6W
R331	401 025 7409	CARBON 220 JA 1/6W
R332	401 027 2303	CARBON 560 JA 1/6W
R333	401 027 8305	CARBON 820 JA 1/6W
R334	401 026 4308	CARBON 3.3K JA 1/6W
R335	401 025 4200	CARBON 1.8K JA 1/6W
R336	401 025 1902	CARBON 15K JA 1/6W
R341	401 026 4308	CARBON 3.3K JA 1/6W
R342	401 025 1605	CARBON 1.5K JA 1/6W
R343	401 027 3003	CARBON 56K JA 1/6W
R344	401 025 8208	CARBON 22K JA 1/6W
R345	401 027 2600	CARBON 5.6K JA 1/6W
R346	401 026 9907	CARBON 4.7K JA 1/6W
R351	401 027 2600	CARBON 5.6K JA 1/6W
R352	401 027 2600	CARBON 5.6K JA 1/6W
R353	401 024 7400	CARBON 10K JA 1/6W
R354	401 025 4606	CARBON 18K JA 1/6W
R355	401 025 4200	CARBON 1.8K JA 1/6W
R356	401 027 2600	CARBON 5.6K JA 1/6W
R357	401 024 7400	CARBON 10K JA 1/6W
R359	401 024 7004	CARBON 1K JA 1/6W
R360	401 024 7004	CARBON 1K JA 1/6W
R363	401 025 7805	CARBON 2.2K JA 1/6W
R401	401 027 9005	CARBON 82K JA 1/6W
R402	401 026 0607	CARBON 270 JA 1/6W
R411	401 024 7004	CARBON 1K JA 1/6W
R412	401 009 1508	CARBON 2.7K JA 1/2W
R420	401 007 4709	CARBON 1.2K JA 1/2W
R421	401 025 1605	CARBON 1.5K JA 1/6W
R422	401 025 8703	CARBON 220K JA 1/6W
R431	401 026 3905	CARBON 330 JA 1/6W
R432	401 024 7004	CARBON 1K JA 1/6W
R433	401 007 1104	CARBON 1K JA 1/2W
R434	401 067 0000	OXIDE-MT 270 JA 2W
R435	402 055 5106	WIRE WOUND 12 KA 6W
R442	401 025 8703	CARBON 220K JA 1/6W
R443	401 058 3706	OXIDE-MT 1K JA 1W
R450	401 025 1605	CARBON 1.5K JA 1/6W
⚠R451	402 002 0307	FUSIBLE RES 15 J- 1/2W
R452	401 026 1307	CARBON 27K JA 1/6W
R453	401 027 5502	CARBON 6.8K JA 1/6W
R454	401 027 5908	CARBON 68K JA 1/6W
R455	401 026 1307	CARBON 27K JA 1/6W
R456	401 024 7004	CARBON 1K JA 1/6W
R457	401 026 8108	CARBON 4.7 JA 1/6W
R461	401 026 7002	CARBON 3.9K JA 1/6W
R462	401 025 4200	CARBON 1.8K JA 1/6W
R464	401 026 0607	CARBON 270 JA 1/6W
R465	401 006 8807	CARBON 1.8 JA 1/2W
R467	401 058 3706	OXIDE-MT 1K JA 1W
R468	401 009 5803	CARBON 330 JA 1/2W
R474	401 024 7400	CARBON 10K JA 1/6W
R481	401 057 6807	OXIDE-MT 0.68 JA 1W
R491	401 027 5502	CARBON 6.8K JA 1/6W
R493	401 027 2600	CARBON 5.6K JA 1/6W
R495	401 024 7400	CARBON 10K JA 1/6W
R496	401 026 9600	CARBON 470 JA 1/6W
R497	401 024 7400	CARBON 10K JA 1/6W
R501	401 008 8607	CARBON 220K JA 1/2W
R502	402 057 8204	WIRE WOUND 3.9 KA 6W
R511	401 027 2600	CARBON 5.6K JA 1/6W
R515	401 025 8208	CARBON 22K JA 1/6W
R517	401 027 2303	CARBON 560 JA 1/6W
R519	401 016 2604	CARBON 220 JA 1/4W
R520	401 000 5901	SOLID 120K KA 1/2W
R521	401 000 5901	SOLID 120K KA 1/2W
R522	401 014 5201	CARBON 15K JA 1/4W
R524	401 069 6208	OXIDE-MT 82 JA 2W
R525	401 069 1708	OXIDE-MT 68 JA 2W
R526	401 016 3304	CARBON 2.2K GA 1/4W
R531	402 000 8305	SOLID 5.6M KA 1/2W
R532	402 000 8305	SOLID 5.6M KA 1/2W
⚠R550	402 002 2004	FUSIBLE RES 4.7 J- 1/2W
R551	401 066 8007	OXIDE-MT 22K JA 2W
R552	401 012 8105	CARBON 100K JA 1/4W
R553	401 020 2003	CARBON 4.7K JA 1/4W
R554	401 014 6109	CARBON 150K JA 1/4W
R555	401 010 4307	CARBON 47K JA 1/2W
R556	401 025 8208	CARBON 22K JA 1/6W
R557	401 058 1108	OXIDE-MT 10 JA 1W
R560	401 009 6602	CARBON 3.3K JA 1/2W
⚠R562	402 002 4404	FUSIBLE RES 6.8 J- 1W
R563	401 066 9103	OXIDE-MT 27 JA 2W
R564	401 024 7400	CARBON 10K JA 1/6W
R565	401 019 1901	CARBON 3.9K JA 1/4W
R566	401 024 7400	CARBON 10K JA 1/6W
R567	401 013 5301	CARBON 1.2K JA 1/4W
⚠R569	402 037 1805	FUSIBLE RES 4.7 J- 1W
R700	401 026 3905	CARBON 330 JA 1/6W
R701	401 065 6707	OXIDE-MT 150 JA 2W
R702	401 024 7400	CARBON 10K JA 1/6W
R703	401 026 9907	CARBON 4.7K JA 1/6W
R704	401 024 7400	CARBON 10K JA 1/6W
R705	401 027 5908	CARBON 68K JA 1/6W
R706	401 027 5908	CARBON 68K JA 1/6W
R707	401 027 0309	CARBON 47K JA 1/6W
R708	401 024 7400	CARBON 10K JA 1/6W
R709	401 025 4200	CARBON 1.8K JA 1/6W
R710	401 026 7606	CARBON 390K JA 1/6W
R711	401 027 3201	CARBON 560K JA 1/6W
R712	401 024 6700	CARBON 100 JA 1/6W

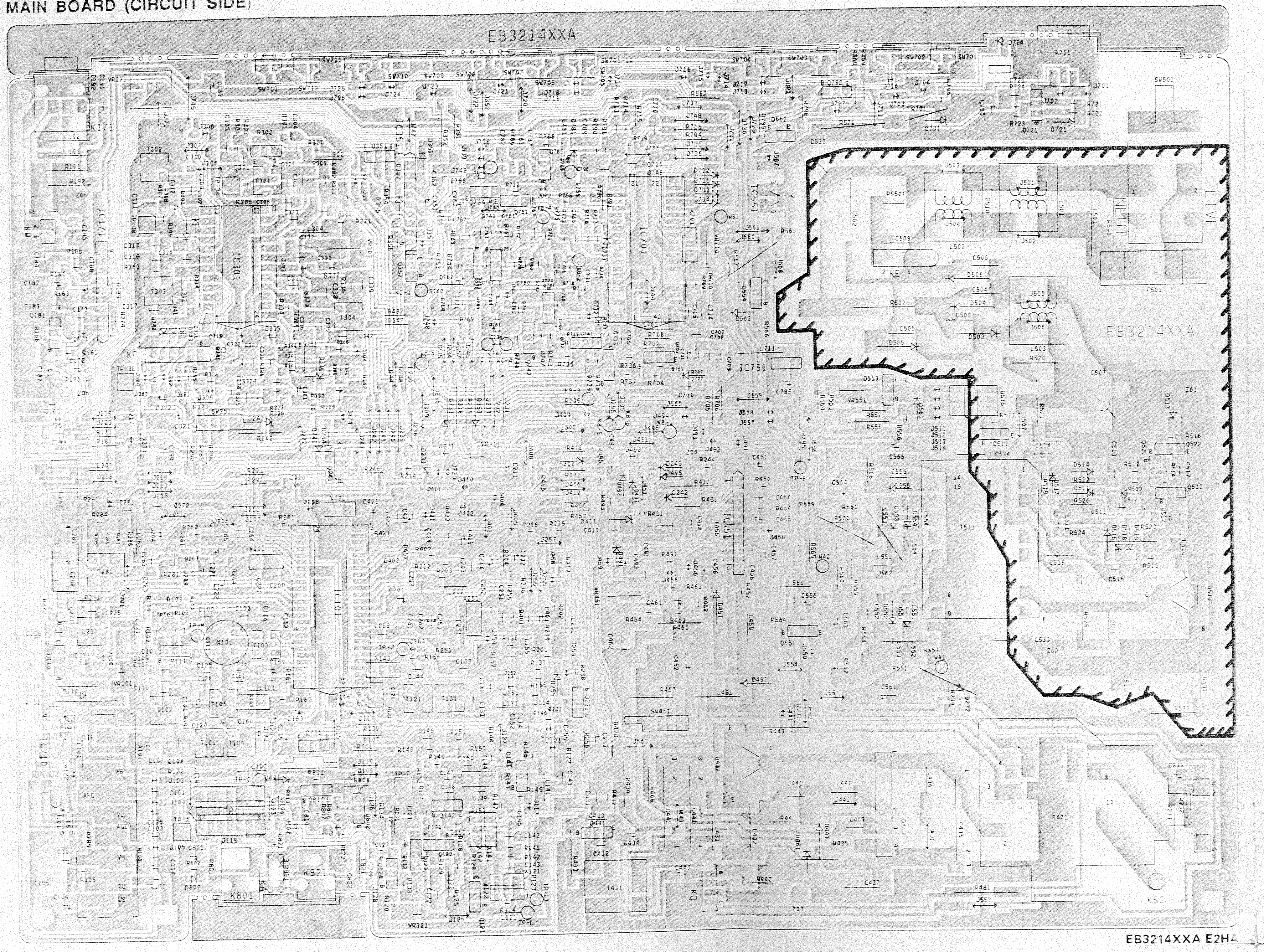
Ref. No.	Part No.	Description
R713	401 024 7400	CARBON 10K JA 1/6W
R714	401 024 7400	CARBON 10K JA 1/6W
R715	401 019 1901	CARBON 3.9K JA 1/4W
R716	401 027 0309	CARBON 47K JA 1/6W
R719	401 025 8208	CARBON 22K JA 1/6W
R721	401 025 1605	CARBON 1.5K JA 1/6W
R722	401 027 8602	CARBON 8.2K JA 1/6W
R723	401 026 9907	CARBON 4.7K JA 1/6W
R724	401 026 9600	CARBON 470 JA 1/6W
R731	401 025 8208	CARBON 22K JA 1/6W
R733	401 025 8208	CARBON 22K JA 1/6W
R734	401 027 0309	CARBON 47K JA 1/6W
R735	401 027 2600	CARBON 5.6K JA 1/6W
R736	401 025 8208	CARBON 22K JA 1/6W
R737	401 024 7400	CARBON 10K JA 1/6W
R738	401 027 2600	CARBON 5.6K JA 1/6W
R739	401 026 9907	CARBON 4.7K JA 1/6W
R741	401 024 7400	CARBON 10K JA 1/6W
R742	401 026 4605	CARBON 33K JA 1/6W
R743	401 027 2600	CARBON 5.6K JA 1/6W
R744	401 024 7004	CARBON 1K JA 1/6W
R745	401 024 9008	CARBON 120 JA 1/6W
R746	401 024 9305	CARBON 1.2K JA 1/6W
R747	401 024 7004	CARBON 1K JA 1/6W
R748	401 026 3905	CARBON 330 JA 1/6W
R758	401 027 5502	CARBON 6.8K JA 1/6W
R759	401 025 8208	CARBON 22K JA 1/6W
R761	401 024 6700	CARBON 100 JA 1/6W
R762	401 027 2600	CARBON 5.6K JA 1/6W
R763	401 027 0309	CARBON 47K JA 1/6W
R764	401 025 4200	CARBON 1.8K JA 1/6W
R765	401 027 2303	CARBON 560 JA 1/6W
R766	401 027 2303	CARBON 560 JA 1/6W
R767	401 024 6700	CARBON 100 JA 1/6W
R768	401 027 5502	CARBON 6.8K JA 1/6W
R769	401 026 7408	CARBON 39K JA 1/6W
R770	401 025 7805	CARBON 2.2K JA 1/6W
R771	401 024 9701	CARBON 12K JA 1/6W
R772	401 027 0309	CARBON 47K JA 1/6W
R773	401 026 9907	CARBON 4.7K JA 1/6W
R774	401 025 4606	CARBON 18K JA 1/6W
R775	401 026 1307	CARBON 27K JA 1/6W
R776	401 025 4606	CARBON 18K JA 1/6W
R778	401 026 9907	CARBON 4.7K JA 1/6W
R779	401 026 7408	CARBON 39K JA 1/6W
R781	401 027 5908	CARBON 68K JA 1/6W
R785	401 027 2600	CARBON 5.6K JA 1/6W
R786	401 027 2600	CARBON 5.6K JA 1/6W
R787	401 027 2600	CARBON 5.6K JA 1/6W
R788	401 025 8208	CARBON 22K JA 1/6W
R789	401 026 1307	CARBON 27K JA 1/6W
R790	401 026 4605	CARBON 33K JA 1/6W
R791	401 025 8208	CARBON 22K JA 1/6W
R793	401 025 8208	CARBON 22K JA 1/6W
R794	401 025 7409	CARBON 220 JA 1/6W
R795	401 064 9907	OXIDE-MT 10K JA 2W
R796	401 026 9600	CARBON 470 JA 1/6W
R798	401 027 2600	CARBON 5.6K JA 1/6W
R801	401 023 0709	CARBON 82 JA 1/4W
R802	401 024 6700	CARBON 100 JA 1/6W
R806	401 027 8602	CARBON 8.2K JA 1/6W
R807	401 027 5502	CARBON 6.8K JA 1/6W
R808	401 024 7004	CARBON 1K JA 1/6W
R810	401 025 8208	CARBON 22K JA 1/6W
R811	401 027 2600	CARBON 5.6K JA 1/6W
R812	401 024 6700	CARBON 100 JA 1/6W
R821	401 024 7707	CARBON 100K JA 1/6W
R822	401 024 7004	CARBON 1K JA 1/6W

Ref.No.	Part No.	Description
VARIABLE RESISTER		
VR101	610 019 3413	VR B-10K
	610 019 3901	VR B-10K
VR121	610 019 3338	VR B-1K
	610 019 3864	VR B-1K
VR211	610 019 3932	VR B-50K
VR281	610 019 3864	VR B-1K
VR301	610 019 3352	VR B-2K
	610 019 3871	VR B-2K
VR411	610 019 3451	VR B-20K
	610 019 3918	VR B-20K
VR451	610 019 3512	VR B-100K
	610 019 3949	VR B-100K
VR551	610 019 3352	VR B-2K
	610 019 3871	VR B-2K
VR710	610 019 3888	VR B-3K
TRANSFORMER		
T101	610 037 5727	S TRANS
T102	610 037 7103	S TRANS
T103	610 213 4551	S TRANS
T121	610 037 4522	S COIL
T131	610 037 6557	S TRANS
	610 037 6564	S TRANS
T281	610 037 7028	S TRANS
T301	610 037 5819	S TRANS
T302	610 037 4546	S COIL
T303	610 037 4546	S COIL
T304	610 037 4546	S COIL
T431	610 000 1060	DRIVE TRANS
	610 000 1053	DRIVE TRANS
⚠T471	610 017 9974	FBT
⚠T511	610 216 4534	CONVERTER TRANS
COIL		
L121	610 031 3958	PEAKING COIL
L131	610 031 3958	PEAKING COIL
L141	610 031 3958	PEAKING COIL
L161	610 031 3958	PEAKING COIL
L191	610 032 4381	FILTER COIL
	610 032 4404	FILTER COIL
L192	610 032 4381	FILTER COIL
	610 032 4404	FILTER COIL
L201	610 030 0712	DELAY LINE
L211	610 037 4546	S COIL
L221	610 029 5926	PEAKING COIL 10UH K
	610 210 3366	PEAKING COIL 10UHK
	610 029 8125	PEAKING COIL 10UH K
L251	610 031 4177	PEAKING COIL
L281	610 031 4290	PEAKING COIL 8.2UHK
L282	610 032 6699	1H DELAYLINE
	610 032 6705	1H DELAYLINE
L283	610 031 4603	PEAKING COIL
L302	610 031 4078	PEAKING COIL
L303	610 031 3958	PEAKING COIL
L304	610 031 4214	PEAKING COIL
L305	610 031 3958	PEAKING COIL
L451	610 031 3156	PEAKING COIL
	610 210 3809	PEAKING COIL 18UHK
⚠L501	610 212 6013	LINE FILTER
⚠L502	610 031 5945	LINE FILTER
	610 031 5969	LINE FILTER
	610 213 9563	LINE FILTER
L503	610 031 5945	LINE FILTER
	610 031 5969	LINE FILTER
	610 213 9563	LINE FILTER
L700	610 029 5926	PEAKING COIL 10UH K
	610 210 3366	PEAKING COIL 10UHK
	610 029 8125	PEAKING COIL 10UH K
L701	610 031 4504	PEAKING COIL

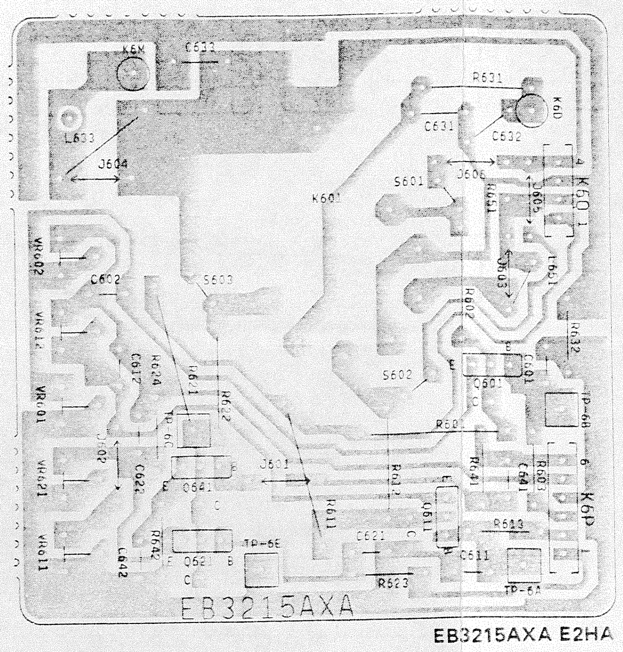
Ref. No.	Part No.	Description
L781	610 031 3873	PEAKING COIL 10UHK
L821	610 029 5926	PEAKING COIL 10UH K
	610 029 8125	PEAKING COIL 10UH K
DIODE		
D110	407 048 5606	ZENER DIODE EQA02-10A
D231	407 005 4505	DIODE DS442X
	407 013 1008	DIODE 1S1553
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D241	407 075 9905	ZENER DIODE EQA03-11A
D242	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D243	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D244	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D255	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D301	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D302	407 102 6006	DIODE 1S188-TV-M
D334	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D341	407 075 9905	ZENER DIODE EQA03-11A
D342	407 075 9905	ZENER DIODE EQA03-11A
D343	407 075 9905	ZENER DIODE EQA03-11A
D353	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D411	407 048 5606	ZENER DIODE EQA02-10A
	407 048 5804	ZENER DIODE EQA02-10B
D441	407 006 3903	DIODE ERB43-04
	407 011 4407	DIODE TVR1G
D451	407 005 7308	DIODE EM01Z
	407 006 1008	DIODE ERB12-02RK
	408 009 9008	DIODE BYD33D
D452	407 007 7801	DIODE EU2Z
	408 009 9305	DIODE BYD33G
	407 013 1909	DIODE 1S1834
D491	407 048 1103	ZENER DIODE EQA02-05D
D492	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D493	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D494	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D495	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D505	407 006 6300	DIODE ERC05-10B
	407 009 6901	DIODE RM11C
	407 064 6908	DIODE TVR4N(X)
D514	407 005 4505	DIODE DS442X
	407 013 1008	DIODE 1S1553
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D515	407 105 8700	PHOTO COUPLE PC113B
	408 009 8407	PHOTO COUPLE CNY17GF-3
D516	407 005 4505	DIODE DS442X
	407 013 1008	DIODE 1S1553
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D517	407 007 6606	DIODE ES1
	407 007 6903	DIODE ES1Z
	408 009 9008	DIODE BYD33D
D551	407 007 7702	DIODE EU2A
	408 009 9206	DIODE BYD33J
	407 064 7004	DIODE 1S1835
D553	407 007 6606	DIODE ES1
	408 009 9305	DIODE BYD33G
	407 013 1909	DIODE 1S1834
D554	407 007 7801	DIODE EU2Z
	408 009 9305	DIODE BYD33G
	407 013 1909	DIODE 1S1834
D555	407 007 6606	DIODE ES1
	408 009 9305	DIODE BYD33G
	407 013 1909	DIODE 1S1834
D561	407 048 2407	ZENER DIODE EQA02-06E
	407 048 2605	ZENER DIODE EQA02-06F
D562	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D701	407 048 1103	ZENER DIODE EQA02-05D
	407 048 1202	ZENER DIODE EQA02-05E
D702	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D704	407 029 1207	LED SLP-177B-60
	408 009 3808	LED SLC-26VR5F
D711	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D721	407 055 7907	ZENER DIODE RD3.6EL
D731	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D741	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076

Ref. No.	Part No.	Description
	407 013 7109	DIODE 1S2473
D781	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D792	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D801	407 005 4208	DIODE DS442S2
	408 008 2406	DIODE 1N4148
	407 013 1206	DIODE 1S1555
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
MISCELLANEUS		
⚠F501	423 006 4801	FUSE 250V 2.5A
	423 006 4702	FUSE 250V 2.5A
F501-A1	610 012 4356	FUSE CLIP
	610 212 8543	FUSE CLIP
F501-A2	610 012 4356	FUSE CLIP
	610 212 8543	FUSE CLIP
TH710	407 015 0405	THERMISTOR SDT-35-CTV
A101	610 217 7107	UV VARACTOR TUNER
A701	610 214 4833	RC PREAMP 409-1A/1B/1F
IC451-1	411 036 3208	SCR PAN+SW+W 3X10
IC451-2	411 054 7103	NUT HEX 3
IC551-1	610 219 1189	HEAT SINK-E2HV
IC551-2	610 014 5818	WASHER
IC551-3	411 023 9305	SCR S-TPG PAN 3X7
Q432-1	610 216 5050	HOR & VERT HEAT SINK-E2HA
Q432-2	610 080 3145	WASHER TO-3PM
Q432-3	411 045 2803	SCR PAN+SW 3X12
Q432-4	411 054 7103	NUT HEX 3
Q432-7	412 031 0605	SPECIAL SCREW
Q513-1	610 216 5043	POWER HEAT SINK-E2HA
Q513-2	610 080 3145	WASHER TO-3PM
Q513-3	411 045 2803	SCR PAN+SW 3X12
Q513-4	411 054 7103	NUT HEX 3
Q513-7	412 031 0605	SPECIAL SCREW
KDY1P	610 014 3364	M/C TERMINAL PLUG
KDY2P	610 014 3364	M/C TERMINAL PLUG
KDY3P	610 014 3364	M/C TERMINAL PLUG
KDY4P	610 014 3364	M/C TERMINAL PLUG
KE1P	610 014 3364	M/C TERMINAL PLUG
KE2P	610 014 3364	M/C TERMINAL PLUG
KP	610 012 3380	WIRE HOLDER 6P
KQ	610 012 3342	WIRE HOLDER 4P
KSCP	610 014 3364	M/C TERMINAL PLUG
KW	610 010 7960	HOUSING PLUG 2P
K171	610 212 6334	PHONE JACK
K801	610 010 8820	RCA JACK 1P
K821	610 010 8813	RCA JACK 1P
PS501	408 003 6805	THERMISTOR 902P44E180MR14
	408 000 3906	TH PTH451A13BG180M270
SW251	610 011 2728	LEVER SWITCH
⚠SW501	610 218 9162	PUSH SWITCH
SW701	610 011 2698	PUSH SWITCH
SW702	610 011 2698	PUSH SWITCH
SW703	610 011 2698	PUSH SWITCH
SW704	610 011 2698	PUSH SWITCH
SW705-10	610 011 4463	PUSH SWITCH
SW711	610 011 4432	PUSH SWITCH
SW712	610 011 4432	PUSH SWITCH
SW713	610 011 4432	PUSH SWITCH
X101	421 002 7703	SAW F TSF1337L
X121	610 015 2854	CERAMIC FILTER
X122	610 015 3011	CERAMIC FILTER
X143	610 015 2878	CERAMIC FILTER
X161	610 216 7245	CERAMIC FILTER
X201	610 012 0495	CRYSTAL OSCILLATOR
	610 012 0501	CRYSTAL OSCILLATOR
	610 204 4188	CRYSTAL OSCILLATOR
	610 012 0525	CRYSTAL OSCILLATOR
X251	610 012 2222	CERAMIC TRAP
	610 226 6894	CERAMIC TRAP
X421	610 216 6149	CERAMIC OSCILLATOR
X701	610 012 2857	CERAMIC OSCILLATOR
	610 212 8765	CERAMIC OSCILLATOR
OUT OF CIRCUIT BOARD		
PICTURE TUBE		
⚠Q901	413 007 1008	CRT A34JRH61X
Q901-1	610 003 1722	CG PURITY MAGNET
	610 004 3008	CG PURITY MAGNET
COIL		
⚠L901	610 225 3535	DEGAUSSING COIL
	610 225 3542	DEGAUSSING COIL
	610 225 3559	DEGAUSSING COIL
⚠L902	610 224 5790	DEFLECTION YOKE
MISCELLANEUS		
KFO-1	610 212 6341	TERMINAL SOCKET
KSCS	610 013 9442	MINI CONNECTOR 1P-SOCKET
KSCS-1	610 013 9404	M/C TERMINAL SOCKET
KWS	610 010 8059	HOUSING 2P
KWS1	610 010 8141	TERMINAL SOCKET
KWS2	610 010 8141	TERMINAL SOCKET
K6PS	610 012 3380	WIRE HOLDER 6P
K6QS	610 012 3342	WIRE HOLDER 4P
SP901	610 215 6089	SPEAKER
	610 211 7936	SPEAKER
	610 211 7943	SPEAKER
⚠W901	610 011 7099	AC CORD
	610 011 9734	AC CORD
	610 011 9765	AC CORD
W902	610 024 2159	GROUNDING CONNECTOR

MAIN BOARD (CIRCUIT SIDE)

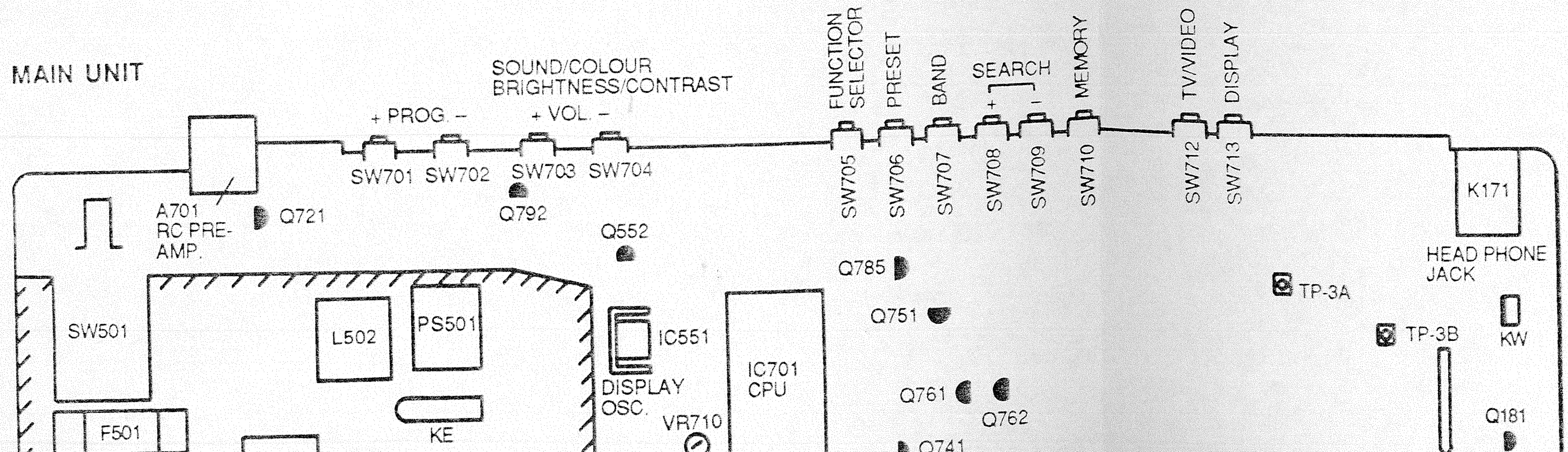

EB3214XXA
NEUT
LIVE
EB3214XXA
EB3214XXA E2HA

CRT BOARD (CIRCUIT SIDE)

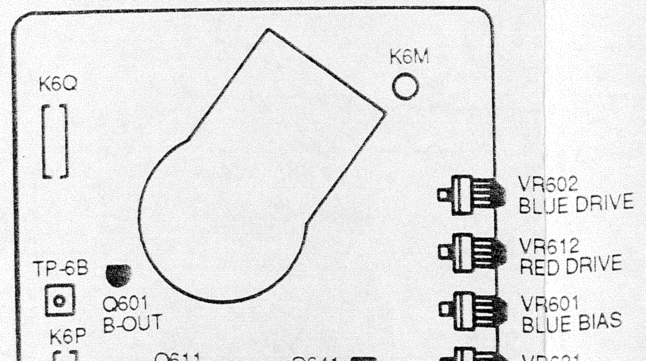

EB3215AXA
EB3215AXA E2HA

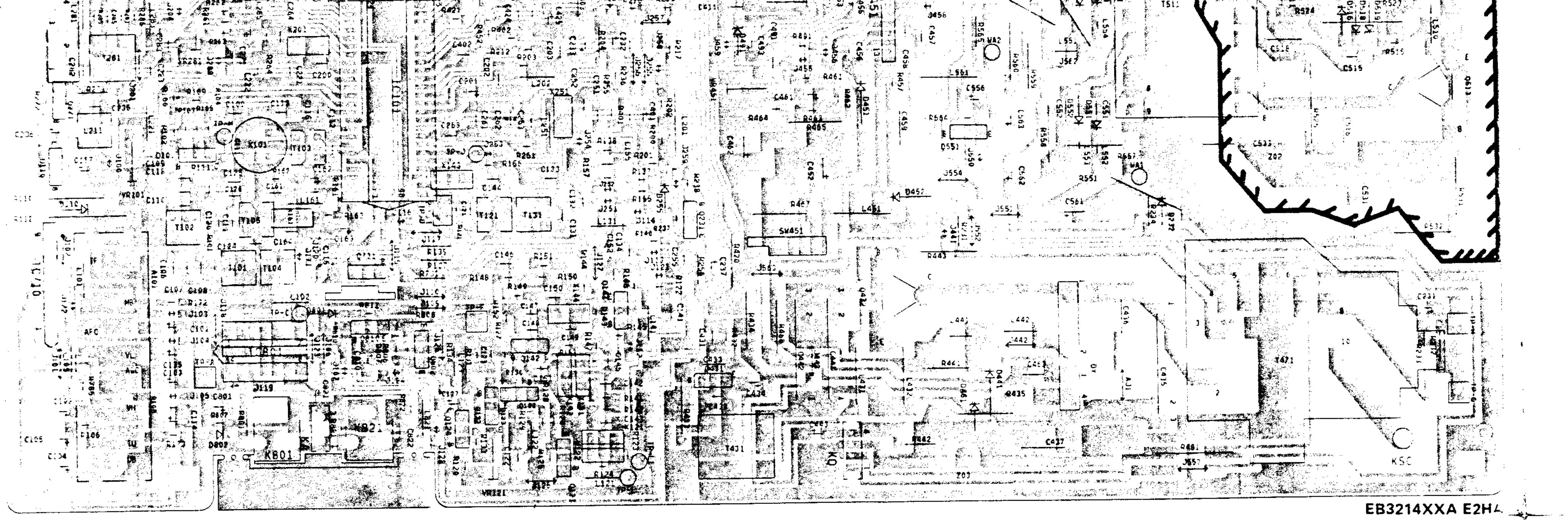
COMPONENT LOCATION

MAIN UNIT


+ PROG. –
SOUND/COLOUR
BRIGHTNESS/CONTRAST
+ VOL. –
FUNCTION SELECTOR
PRESET
BAND
SEARCH
+
–
MEMORY
TV/VIDEO
DISPLAY
SW701
SW702
SW703
SW704
SW705
SW706
SW707
SW708
SW709
SW710
SW712
SW713
K171
A701
RC PRE-AMP.
Q721
Q792
Q552
HEAD PHONE JACK
Q785
Q751
TP-3A
TP-3B
KW
SW501
L502
PS501
IC551
DISPLAY OSC.
IC701
CPU
Q761
Q762
Q181
VR710
F501
KE
Q741

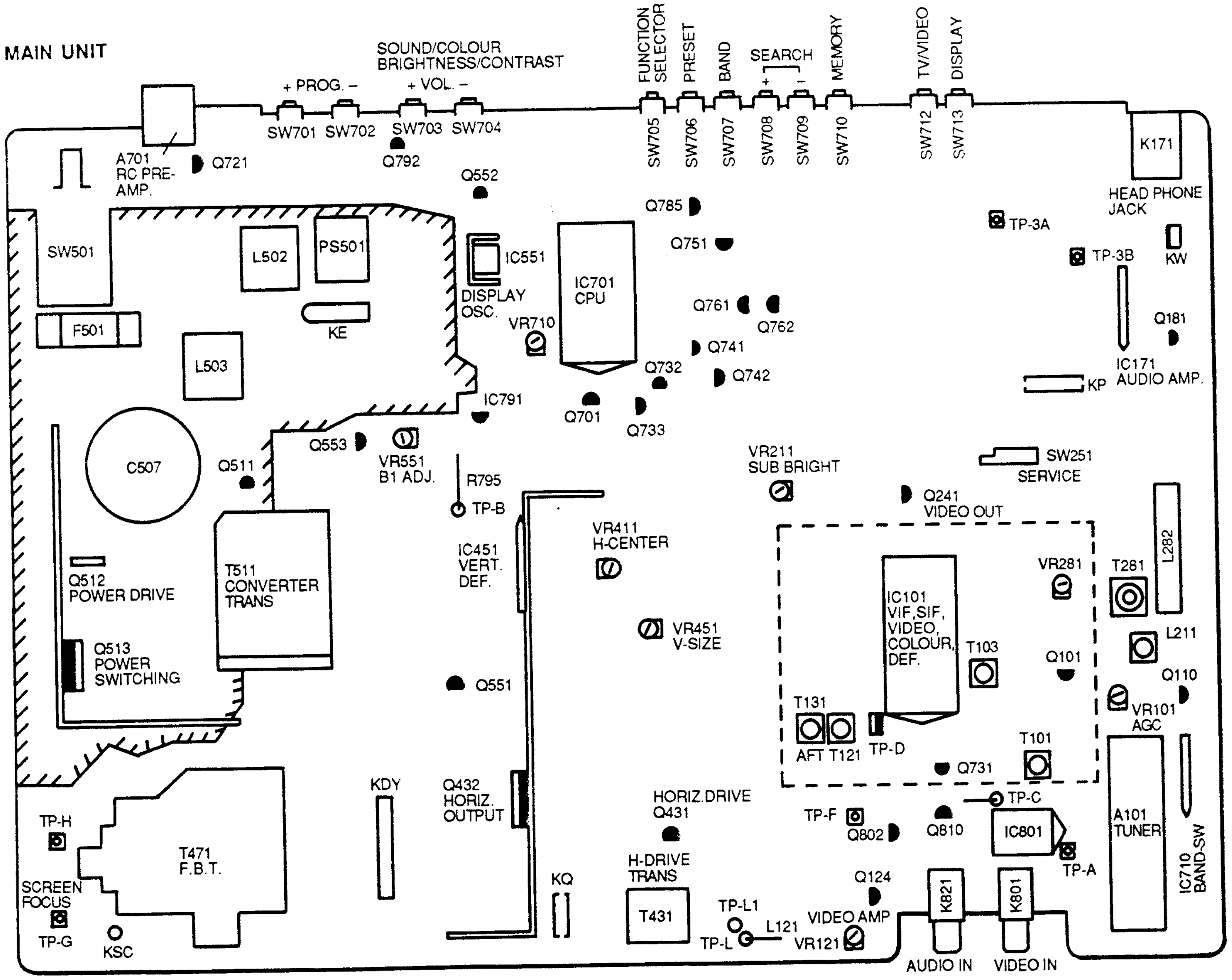
CRT UNIT


K6Q
K6M
VR602
BLUE DRIVE
VR612
RED DRIVE
VR601
BLUE BIAS
TP-6B
Q601
B-OUT
K6P
Q611

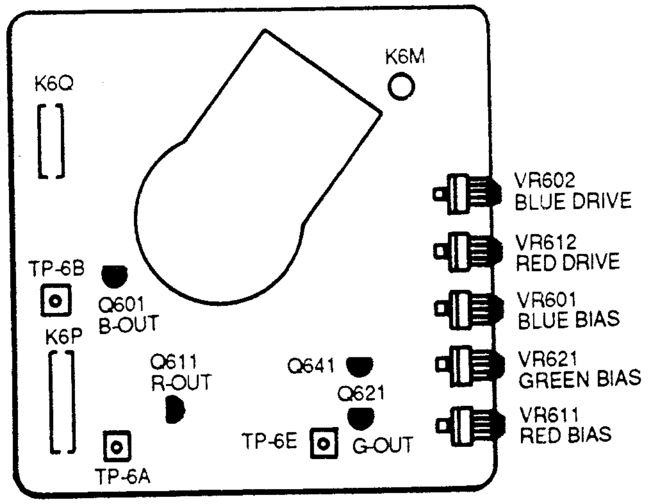

EB3214XXA E2H

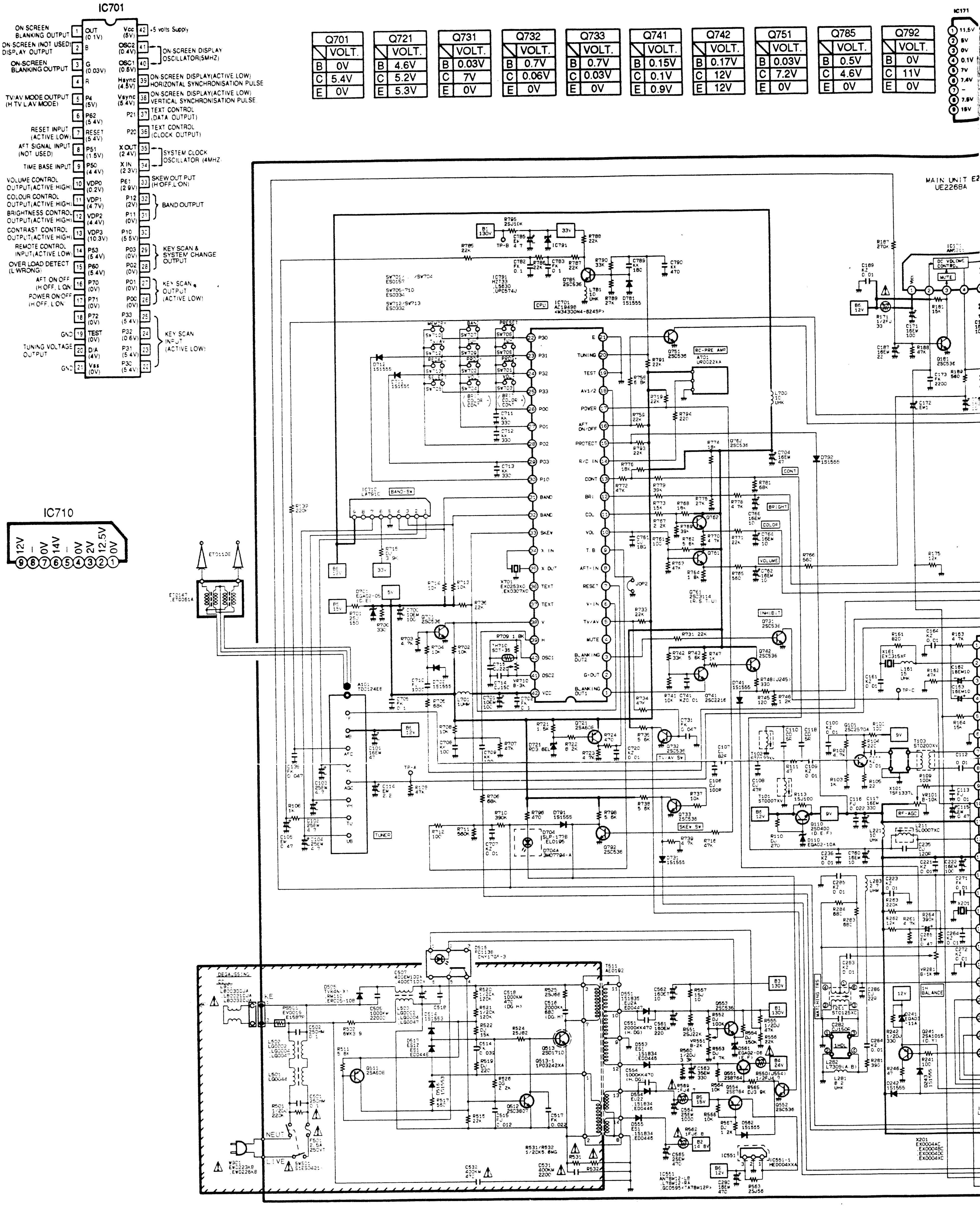
COMPONENT LOCATION

MAIN UNIT


SOUND/COLOUR
BRIGHTNESS/CONTRAST
+ PROG. –
+ VOL. –
FUNCTION SELECTOR
PRESET
BAND
SEARCH
+
–
MEMORY
TV/VIDEO
DISPLAY
SW701
SW702
SW703
SW704
SW705
SW706
SW707
SW708
SW709
SW710
SW712
SW713
A701 RC PRE-AMP.
Q721
Q792
Q552
K171
HEAD PHONE JACK
SW501
L502
PS501
IC551
DISPLAY OSC.
IC701 CPU
Q785
Q751
TP-3A
TP-3B
KW
F501
KE
L503
VR710
Q761
Q762
Q741
Q742
Q732
Q701
Q733
IC791
Q181
IC171 AUDIO AMP.
KP
C507
Q511
Q553
VR551 B1 ADJ.
R795
TP-B
VR211 SUB BRIGHT
SW251 SERVICE
Q241 VIDEO OUT
Q512 POWER DRIVE
T511 CONVERTER TRANS
IC451 VERT. DEF.
VR411 H-CENTER
VR451 V-SIZE
IC101 VIF,SIF, VIDEO, COLOUR, DEF.
VR281
T281
L282
L211
T103
Q101
Q110
VR101 AGC
Q513 POWER SWITCHING
Q551
T131
AFT
T121
TP-D
T101
Q731
KDY
Q432 HORIZ. OUTPUT
HORIZ.DRIVE Q431
TP-F
Q802
Q810
TP-C
IC801
TP-A
A101 TUNER
IC710 BAND-SW
TP-H
T471 F.B.T.
SCREEN
FOCUS
TP-G
KSC
KQ
H-DRIVE TRANS
T431
TP-L1
TP-L
L121
Q124
VIDEO AMP
VR121
K821
K801
AUDIO IN
VIDEO IN

CRT UNIT


K6Q
K6M
VR602 BLUE DRIVE
VR612 RED DRIVE
VR601 BLUE BIAS
VR621 GREEN BIAS
VR611 RED BIAS
TP-6B
Q601 B-OUT
K6P
Q611 R-OUT
Q641
Q621
TP-6E
G-OUT
TP-6A


IC701
ON SCREEN BLANKING OUTPUT 1 OUT (0.1V)
ON-SCREEN (NOT USED) DISPLAY OUTPUT 2 B
ON-SCREEN BLANKING OUTPUT 3 G (0.03V)
4 R
TV/AV MODE OUTPUT (H:TV L:AV MODE) 5 P4 (5V)
6 P62 (5.4V)
RESET INPUT (ACTIVE LOW) 7 RESET (5.4V)
AFT SIGNAL INPUT (NOT USED) 8 P51 (1.5V)
TIME BASE INPUT 9 P50 (4.4V)
VOLUME CONTROL OUTPUT(ACTIVE HIGH) 10 VDP0 (0.2V)
COLOUR CONTROL OUTPUT(ACTIVE HIGH) 11 VDP1 (4.7V)
BRIGHTNESS CONTROL OUTPUT(ACTIVE HIGH) 12 VDP2 (4.4V)
CONTRAST CONTROL OUTPUT(ACTIVE HIGH) 13 VDP3 (10.3V)
REMOTE CONTROL INPUT(ACTIVE LOW) 14 P53 (5.4V)
OVER LOAD DETECT (L:WRONG) 15 P60 (5.4V)
AFT ON/OFF (H:OFF, L:ON) 16 P70 (0V)
POWER ON/OFF (H:OFF, L:ON) 17 P71 (0V)
18 P72 (0V)
GND 19 TEST (0V)
TUNING VOLTAGE OUTPUT 20 D/A (4V)
GND 21 Vss (0V)
42 Vcc (5V) +5 volts Supply
41 OSC2 (0.4V)
40 OSC1 (0.5V)
ON-SCREEN DISPLAY OSCILLATOR(5MHZ)
39 Hsync (4.5V) ON-SCREEN DISPLAY(ACTIVE LOW) HORIZONTAL SYNCHRONISATION PULSE
38 Vsync (5.4V) ON-SCREEN DISPLAY(ACTIVE LOW) VERTICAL SYNCHRONISATION PULSE
37 P21 TEXT CONTROL (DATA OUTPUT)
36 P20 TEXT CONTROL (CLOCK OUTPUT)
35 X OUT (2.4V)
34 X IN (2.3V)
SYSTEM CLOCK OSCILLATOR (4MHZ)
33 P61 (2.9V) SKEW OUT PUT (H:OFF,L:ON)
32 P12 (2V)
31 P11 (0V)
BAND OUTPUT
30 P10 (5.5V)
29 P03 (0V)
28 P02 (0V)
KEY SCAN & SYSTEM CHANGE OUTPUT
27 P01 (0V)
26 P00 (0V)
KEY SCAN, OUTPUT (ACTIVE LOW)
25 P33 (5.4V)
24 P32 (0.6V)
23 P31 (5.4V)
22 P30 (5.4V)
KEY SCAN INPUT (ACTIVE LOW)
IC710
12V
0V
14V
0V
2V
12.5V
0V
IC171
11.5V
5V
0V
0.1V
7V
7.4V
7.5V
15V
MAIN UNIT E2
UE2268A
TUNER
DEGAUSSING
NEUT
LIVE

Q701	VOLT.
B	0V
C	5.4V
E	0V

Q721	VOLT.
B	4.6V
C	5.2V
E	5.3V

Q731	VOLT.
B	0.03V
C	7V
E	0V

Q732	VOLT.
B	0.7V
C	0.06V
E	0V

Q733	VOLT.
B	0.7V
C	0.03V
E	0V

Q741	VOLT.
B	0.15V
C	0.1V
E	0.9V

Q742	VOLT.
B	0.17V
C	12V
E	12V

Q751	VOLT.
B	0.03V
C	7.2V
E	0V

Q785	VOLT.
B	0.5V
C	4.6V
E	0V

Q792	VOLT.
B	0V
C	11V
E	0V

Q511	VOLT.
B	10V
C	-0.8V
E	10.8V

Q512

	VOLT.	WAVEFORM
B	-2.7V	1.1VP-P
C	-1.5V	1.5VP-P
E	0V	------

Q513

	VOLT.	WAVEFORM
B	-1.5V	5Vp-p
C	280V	560VP-P
E	0V	------

Q551	VOLT.
B	23.5V
C	24V
E	24V

Q552	VOLT.
B	0.7V
C	0.1V
E	0V

Q553	VOLT.
B	7V
C	40V
E	6.5V

Q110	VOLT.
B	10V
C	12V
E	9V

SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE ( ) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE. WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK

SANYO

COLOUR TELEVISION

A3 CHASSIS SERIES

SERVICE REF.No. CEP3012D-00

Part No. 4AA6P200066-- E2HEY (A3-A)

PRODUCT SAFETY NOTICE

PRODUCT SAFETY SHOULD BE CONSIDERED WHEN A COMPONENT REPLACEMENT IS MADE IN ANY AREA OF A RECEIVER. COMPONENTS INDICATED BY A MARK ⚠ IN THIS CIRCUIT DIAGRAM SHOW COMPONENTS WHOSE VALUE HAVE SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. IT IS PARTICULARLY RECOMMENDED THAT ONLY PARTS SPECIFIED ON THE PARTS LIST OF SERVICE MANUAL BE USED FOR COMPONENTS REPLACEMENT POINTED OUT BY THE MARK

CIRCUIT DIAGRAM NOTES;

1. ALL RESISTANCE VALUES ARE IN OHMS, K=1,000, M=1,000,000.
2. ALL RESISTANCE RATED WATTAGES ARE 1/4W UNLESS OTHERWISE NOTED.
3. EXCEPTING ELECTROLYTIC CAPACITORS, ALL CAPACITANCE VALUES OF LESS THAN 1 ARE EXPRESSED IN UF, AND MORE THAN 1 ARE IN PF ELECTROLYTOC CAPACITANCE VALUES ARE IN UF
4. ALL CAPACITANCE RATED VOLTAGES ARE 50V UNLESS OTHERWISE NOTED.
5. ALL INDUCTANCE VALUES ARE IN UH
6. VOLTAGE READINGS TAKEN WITH A "VTVM" ARE FROM POINT INDICATED TO CHASSIS GROUND. VOLTAGE READINGS TAKEN BY USING A COLOUR BAR SIGNAL ARE WITH ALL CONTROLS AT NORMAL AND AFC SWITCH IN "OFF" POSITION SOME VOLTAGES MAY VARY WITH SIGNAL STRENGTH
7. WAVEFORMS WERE TAKEN WITH COLOUR BAR SIGNAL AND CONTROLS ADJUSTED FOR NORMAL PICTURE. WAVEFORMS WERE TAKEN BY USING A WIDE BAND OSCILLOSCOPE AND A LOW CAPACITY PROBE
8. VOLTAGE AND WAVEFORM VALUES OF TRANSISTORS IN THE AREA ENCLOSED BY LINE (— - —) ARE MEASURED TO BASE THE ELECTRIC POTENTIAL AT PIN 3 OF T511.
9. THIS CIRCUIT DIAGRAM COVERS A BASIC OR REPRESENTATIVE CHASSIS ONLY THERE MAY BE SOME COMPONENTS OR PARTIAL CIRCUIT DIFFERENCES BETWEEN THE ACTUAL CHASSIS AND THE CIRCUIT DIAGRAM
10. EXPRESSION OF CAPACITANCE AND RESISTANCE IN CIRCUIT D

CAPACITANCE (Example)
1000 C M 2200 D
- Characteristic
- Capacitance value (2200pF)
- Allowable error (±20%)
- Kind (Ceramic)
- Rated voltage (1000V)

RESISTANCE (Example)
1/2 N J 1.2
- Resistance value (1.2Ω)
- Allowable error (±5%)
- Kind (Metalized carbon)
- Rated Wattage (1/2W)

Q701	
	VOLT.
B	0V
C	5.4V
E	0V

Q721	
	VOLT.
B	4.6V
C	5.2V
E	5.3V

Q731	
	VOLT.
B	0.03V
C	7V
E	0V

Q732	
	VOLT.
B	0.7V
C	0.06V
E	0V

Q733	
	VOLT.
B	0.7V
C	0.03V
E	0V

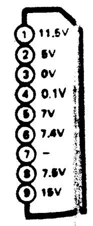
Q741	
	VOLT.
B	0.15V
C	0.1V
E	0.9V

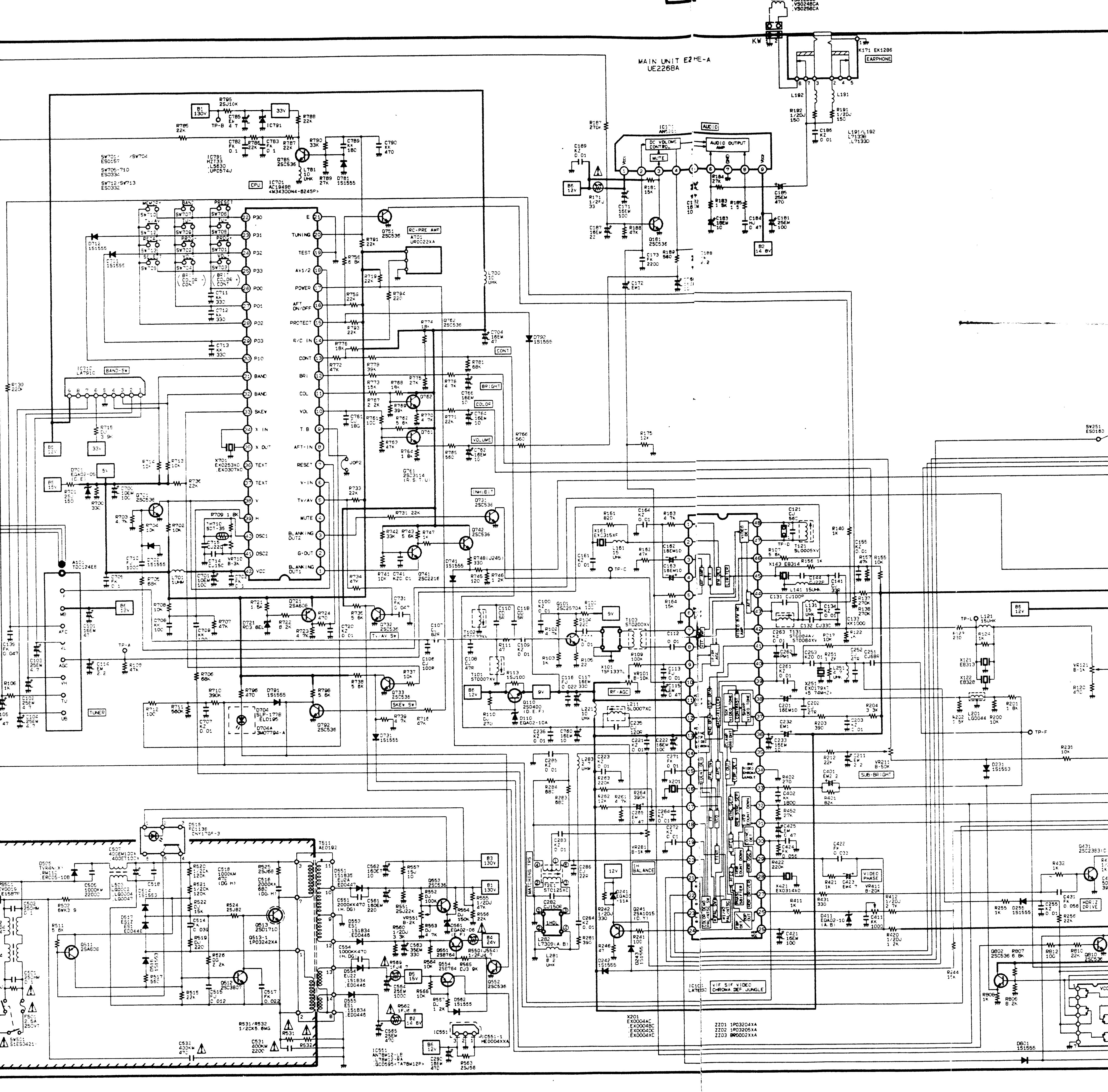
Q742	
	VOLT.
B	0.17V
C	12V
E	12V

Q751	
	VOLT.
B	0.03V
C	7.2V
E	0V

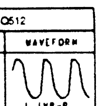
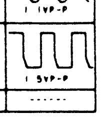
Q785	
	VOLT.
B	0.5V
C	4.6V
E	0V

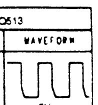
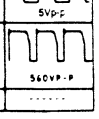
Q792	
	VOLT.
B	0V
C	11V
E	0V


IC171
① 11.5V
② 5V
③ 0V
④ 0.1V
⑤ 7V
⑥ 7.4V
⑦ –
⑧ 7.5V
⑨ 15V


SP901
VS0128C8
VS0248CA
VS0258CA
KW
K171 EK1286
EARPHONE
L192
L191
MAIN UNIT E2HE-A
UE2268A
IC171 AN7161
AUDIO
DC VOLUME CONTROL
AUDIO OUTPUT AMP
MUTE
Q181 2SC536
IC701 AC19498 <M34300N4-624SP>
CPU
IC791 HZ7.33 .L5630 .UPC574J
RC-PRE AMP
A701 UR0022XA
BAND-SW
IC721 LA7910
TUNER
INHIBIT
BRIGHT
COLOR
VOLUME
CONT
SKEW SW
TV AV SW
RF-AGC
SUB-BRIGHT
VIDEO PHASE
H-BALANCE
HOR-Z DRIVE
MATCHING TRS
IC101 LA7680
VIF SIF VIDEO CHROMA DEF JUNGLE
X201 EX0004AC .EX0004BC .EX0004DC .EX0004XC
ZZ01 1P03204XA
ZZ02 1P03205XA
ZZ03 B00002XXA
T511 AE0192
Q511 2SA608
Q512 2SB807
Q513 2SD1710
Q551 2SB764
Q552 2SC536
Q553 2SC536
IC551 AN78M12-LB .L78M12-RA .GC0595<TA78M12P>

Q511	
	VOLT.
B	10V
C	-0.8V
E	10.8V

Q512		
	VOLT.	WAVEFORM
B	-2.7V	 1.1VP-P
C	-1.5V	 1.5VP-P
E	0V	------

Q513		
	VOLT.	WAVEFORM
B	-1.5V	 5Vp-p
C	280V	 560VP-P
E	0V	------

Q551	
	VOLT.
B	23.5V
C	24V
E	24V

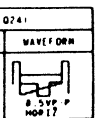
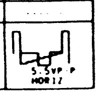
Q552	
	VOLT.
B	0.7V
C	0.1V
E	0V

Q553	
	VOLT.
B	7V
C	40V
E	6.5V

Q110	
	VOLT.
B	10V
C	12V
E	9V

Q101	
	VOLT.
B	1.2V
C	0.4V
E	4.2V

Q124	
	VOLT.
B	2V
C	0V
E	2.8V

Q241		
	VOLT.	WAVEFORM
B	4.6V	 8.5VP-P HORIZ
C	1.2V	------
E	5.3V	 5.5VP-P HORIZ

Q80	
	VO
B	6.
C	12
E	6

Q81	
	VO
B	0.0
C	12
E	0

VISION

SSIS SERIES

2D-00

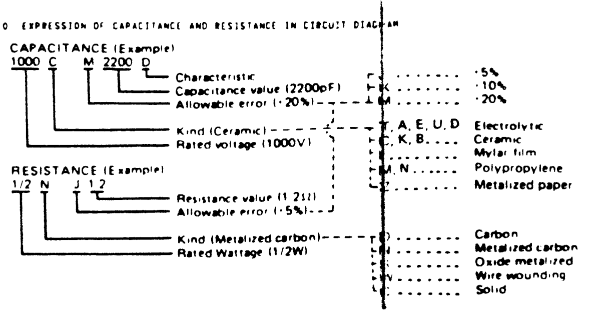
PRODUCT SAFETY NOTICE

PRODUCT SAFETY SHOULD BE CONSIDERED WHEN A COMPONENT REPLACEMENT IS MADE IN ANY AREA OF A RECEIVER. COMPONENTS INDICATED BY A MARK ⚠ IN THIS CIRCUIT DIAGRAM SHOW COMPONENTS WHOSE VALUE HAVE SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. IT IS PARTICULARLY RECOMMENDED THAT ONLY PARTS SPECIFIED ON THE PARTS LIST OF SERVICE MANUAL BE USED FOR COMPONENTS REPLACEMENT POINTED OUT BY THE MARK

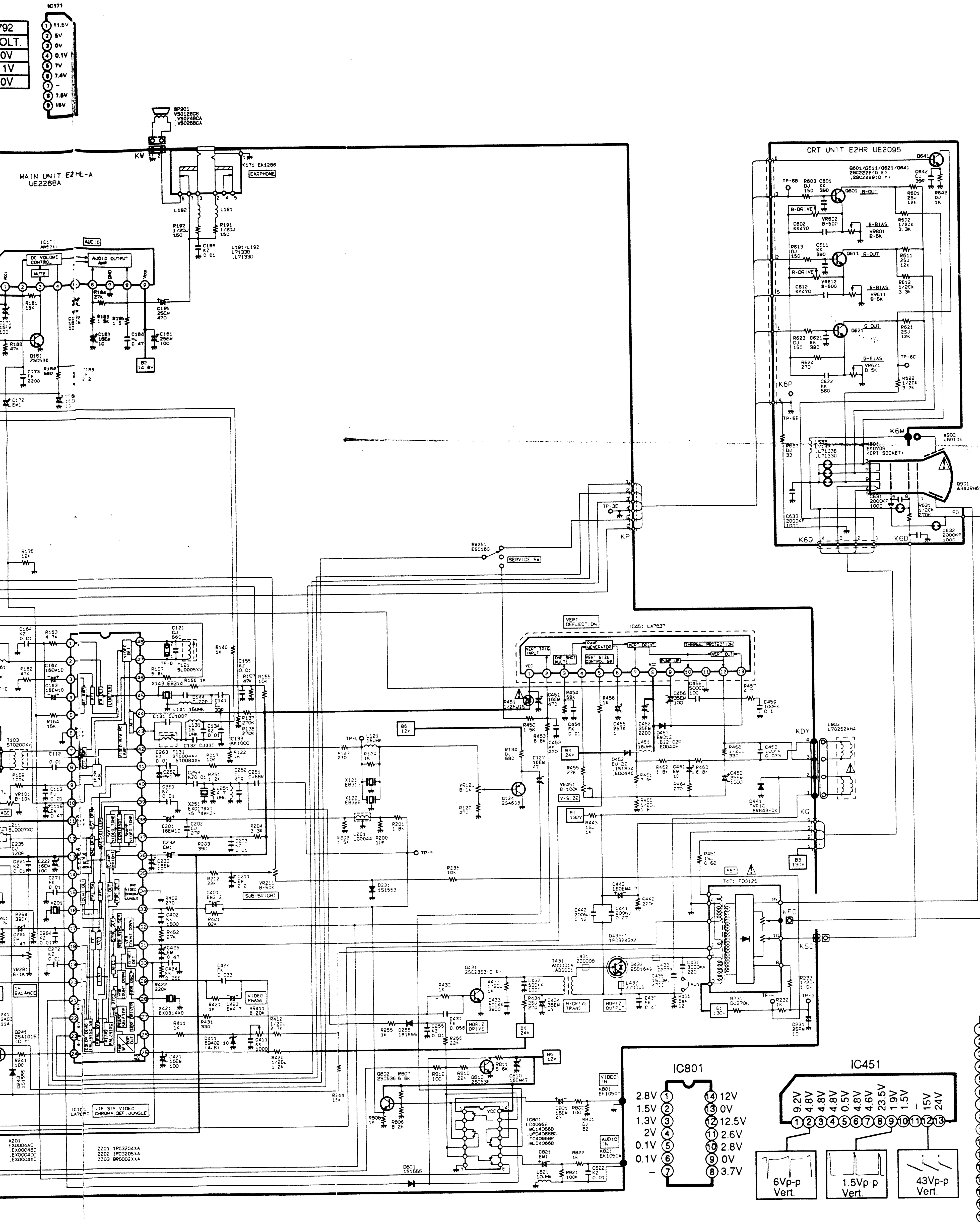
CIRCUIT DIAGRAM NOTES;

1. ALL RESISTANCE VALUES ARE IN OHMS; K=1,000, M=1,000,000.
2. ALL RESISTANCE RATED WATTAGES ARE 1/4W UNLESS OTHERWISE NOTED.
3. EXCEPTING ELECTROLYTIC CAPACITORS, ALL CAPACITANCE VALUES OF LESS THAN 1 ARE EXPRESSED IN UF, AND MORE THAN 1 ARE IN PF. ELECTROLYTOC CAPACITANCE VALUES ARE IN UF
4. ALL CAPACITANCE RATED VOLTAGES ARE 50V UNLESS OTHERWISE NOTED.
5. ALL INDUCTANCE VALUES ARE IN UH
6. VOLTAGE READINGS TAKEN WITH A "VTVM" ARE FROM POINT INDICATED TO CHASSIS GROUND. VOLTAGE READINGS TAKEN BY USING A COLOUR BAR SIGNAL ARE WITH ALL CONTROLS AT NORMAL AND AFC SWITCH IN "OFF" POSITION. SOME VOLTAGES MAY VARY WITH SIGNAL STRENGTH
7. WAVEFORMS WERE TAKEN WITH COLOUR BAR SIGNAL AND CONTROLS ADJUSTED FOR NORMAL PICTURE. WAVEFORMS WERE TAKEN BY USING A WIDE BAND OSCILLOSCOPE AND A LOW CAPACITY PROBE
8. VOLTAGE AND WAVEFORM VALUES OF TRANSISTORS IN THE AREA ENCLOSED BY LINE (— - —) ARE MEASURED TO BASE THE ELECTRIC POTENTIAL AT PIN 3 OF T311.
9. THIS CIRCUIT DIAGRAM COVERS A BASIC OR REPRESENTATIVE CHASSIS ONLY. THERE MAY BE SOME COMPONENTS OR PARTIAL CIRCUIT DIFFERENCES BETWEEN THE ACTUAL CHASSIS AND THE CIRCUIT DIAGRAM

10. EXPRESSION OF CAPACITANCE AND RESISTANCE IN CIRCUIT DIAGRAM


CAPACITANCE (Example)
1000 C M 2200 D
Characteristic
Capacitance value (2200pF)
Allowable error (±20%)
Kind (Ceramic)
Rated voltage (1000V)
RESISTANCE (Example)
1/2 N J 1 2
Resistance value (1.2Ω)
Allowable error (±5%)
Kind (Metalized carbon)
Rated Wattage (1/2W)
F ±5%
K ±10%
M ±20%
T, A, E, U, D Electrolytic
C, K, B. Ceramic
Mylar film
M, N Polypropylene
Metalized paper
Carbon
Metalized carbon
Oxide metalized
Wire wounding
Solid

11. DIODE 1S1555 MAY BE REPLAED WITH 1S2473, 1S2076 OR DS442 UNLESS OTHERWISE NOTED
TRANSISTOR 2SC536 (E,F,G) MAY BE REPLACED WITH 2SC1740S (Q,R,S), 2SC1740 (Q,R,S), 2SC945A (Q,R,P) OR 2SC1815 (G,O,Y) UNLESS OTHERWISE NOTED
TRANSISTOR 2SA608 (E,F) MAY BE REPLACED WITH 2SA933 (Q,R), 2SA564 (QA,RA) OR 2SA1015 (O,Y) UNLESS OTHERWISE NOTED


IC171
MAIN UNIT E2ME-A UE2268A
CRT UNIT E2HR UE2095
SP901
EARPHONE
AUDIO
AUDIO OUTPUT AMP
DC VOLUME CONTROL
MUTE
SERVICE SW
VERT. DEFLECTION
IC451 LA7837
VERT TRIG INPUT
RAMP GENERATOR
VERT DRIVE
THERMAL PROTECTION
ONE SHOT MULTI
VERT SIZE CONTROL SW
PUMP UP
VERT OUT
V-SIZE
SUB-BRIGHT
H BALANCE
VIDEO PHASE
H-DRIVE TRANS
HORIZ OUTPUT
HORIZ DRIVE
T471 FDC125
KDY
KG
KP
K6M
K6Q
K6D
K5D
IC101 LA7680 VIF SIF VIDEO CHROMA DEF JUNGLE
IC801
VIDEO IN
AUDIO IN
IC801
2.8V ① ⑭ 12V
1.5V ② ⑬ 0V
1.3V ③ ⑫ 12.5V
2V ④ ⑪ 2.6V
0.1V ⑤ ⑩ 2.8V
0.1V ⑥ ⑨ 0V
– ⑦ ⑧ 3.7V
IC451
9.2V 4.8V 4.8V 0.5V 4.8V 4.8V 23.5V 1.9V 1.5V – 15V 24V
①②③④⑤⑥⑦⑧⑨⑩⑪⑫⑬
6Vp-p Vert.
1.5Vp-p Vert.
43Vp-p Vert.

Q641	
	VOLT.
B	0V
C	97V
E	0V

Q601		
	VOLT.	WAVEFORM
B	6.6V	4.2VP-P HORIZ
C	94V	100VP-P HORIZ
E	6.4V	-----

Q611		
	VOLT.	WAVEFORM
B	6.6V	4.2VP-P HORIZ
C	98V	100VP-P HORIZ
E	6.4V	-----

Q621		
	VOLT.	WAVEFORM
B	6.6V	3.7VP-P HORIZ
C	97V	95VP-P HORIZ
E	6.4V	-----

IC101

Pin	Volt	Pin	Volt
①	3.6V	㊽	5V
②	6V	㊼	5V
③	4.6V	㊻	4V
④	5.8V	㊺	5V
⑤	4V	㊹	5.4V
⑥	–	㊸	7.2V
⑦	4.8V	㊷	3.5V
⑧	4.8V	㊶	6.2V
⑨	6V	㊵	4.8V
⑩	7V	㊴	5.6V
⑪	9.3V	㊳	1.8V
⑫	6.7V	㊲	8.6V
⑬	9.2V	㊱	2.8V
⑭	5.7V	㉟	4.4V
⑮	7V	㉞	–
⑯	5.8V	㉝	7V
⑰	6.2V	㉜	4.8V
⑱	3.4V	㉛	0.4V
⑲	4.8V	㉚	7.4V
⑳	3.5V	㉙	5.8V
㉑	5.5V	㉘	5.2V
㉒	5.5V	㉗	0.8V
㉓	5.5V	㉖	0.6V
㉔	4.5V	㉕	7.7V

Q110	
	VOLT.
B	10V
C	12V
E	9V

Q101	
	VOLT.
B	1.2V
C	0.4V
E	4.2V

Q124	
	VOLT.
B	2V
C	0V
E	2.8V

Q241		
	VOLT.	WAVEFORM
B	4.6V	8.5VP-P HORIZ
C	1.2V	-----
E	5.3V	5.5VP-P HORIZ

Q802	
	VOLT.
B	6.6V
C	12V
E	6V

Q810	
	VOLT.
B	0.06V
C	12.5V
E	0V

Q431		
	VOLT	WAVEFORM
B	0.08V	2.1VP-P HORIZ
C	19V	40VP-P HORIZ
E	0V	------

Q432		
	VOLT	WAVEFORM
B	2.3V	1.4VP-P HORIZ
C	80V	1000VP-P HORIZ
E	2.4V	1.2VP-P HORIZ

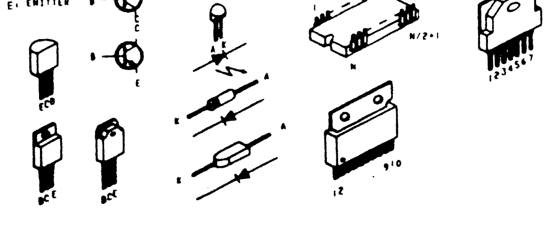
RESISTANCE IN CIRCUIT DIAGRAM

cteristic
itance value (2200pF)
able error (·20%)
(Ceramic)
voltage (1000V)
ance value (1.2Ω)
able error (·5%)
(Metalized carbon)
Wattage (1/2W)

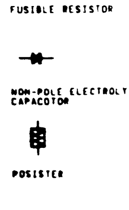
J	·5%
K	·10%
M	·20%
Y, A, E, U, D	Electrolytic
C, K, B.	Ceramic
....	Mylar film
M, N	Polypropylene
Z	Metalized paper
D	Carbon
....	Metalized carbon
....	Oxide metalized
V	Wire wounding
....	Solid

11. DIODE 1S1555 MAY BE REPLAED WITH 1S2473, 1S2076 OR DS442 UNLESS OTHERWISE NOTED
TRANSISTOR 2SC536 (E,F,G) MAY BE REPLACED WITH 2SC1740S (Q,R,S), 2SC1740 (Q,R,S), 2SC945A (Q,R,P) OR 2SC1815 (G,O,Y) UNLESS OTHERWISE NOTED
TRANSISTOR 2SA608 (E,F) MAY BE REPLALED WITH 2SA933 (Q,R), 2SA564 (QA,RA) OR 2SA1015 (O,Y) UNLESS OTHERWISE NOTED

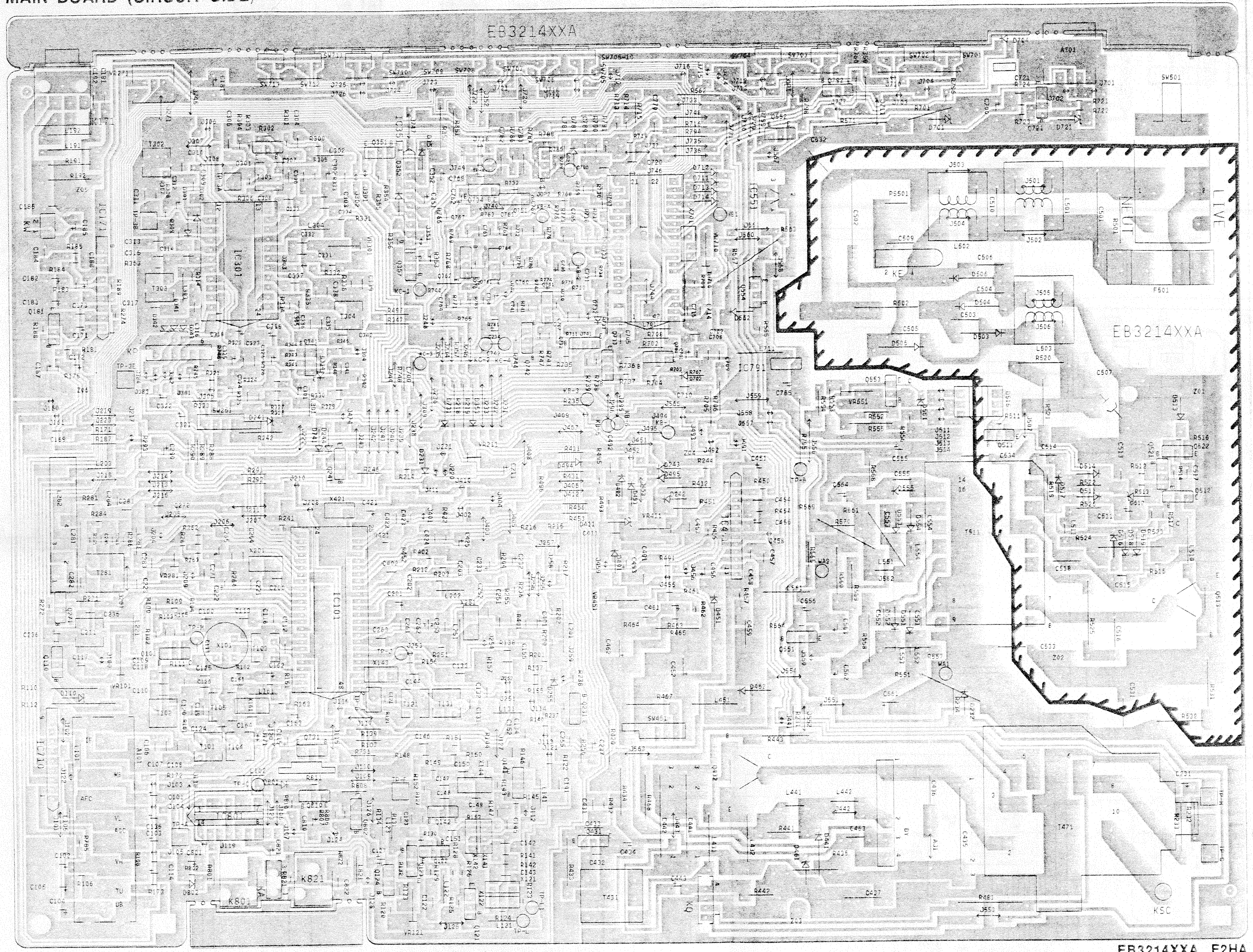
TRANSISTOR, DIODE & INTEGRATED CIRCUIT TERMINAL GUIDE


C: COLLECTOR
B: BASE
E: EMITTER
A: ANODE
K: CATHODE
E C B
B C E
N/2
N/2+1
N
1
1 2
9 10
1 2 3 4 5 6 7

PARTICULAR PARTS SYMBOL

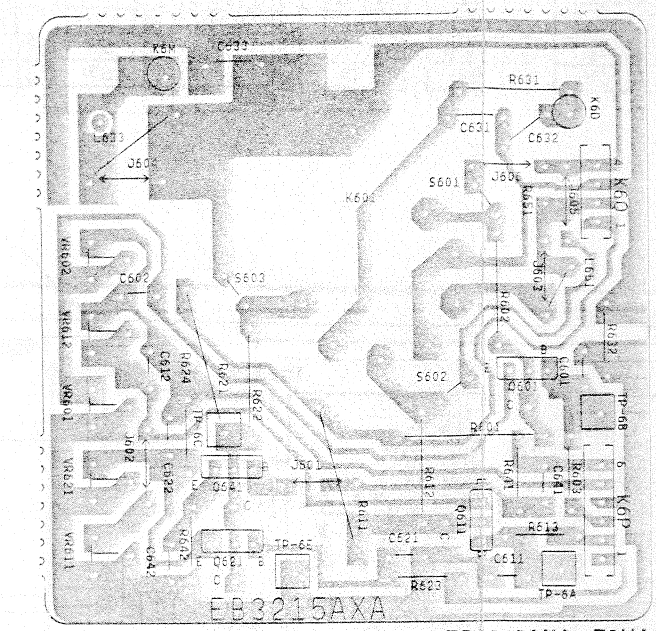

FUSIBLE RESISTOR
NON-POLE ELECTROLYTIC CAPACOTOR
POSISTER

MAIN BOARD (CIRCUIT SIDE)


EB3214XXA
LIVE
NEUT
IC301
IC101
IC791
K801
K821
KSC
KQ
EB3214XXA

EB3214XXA E2HA

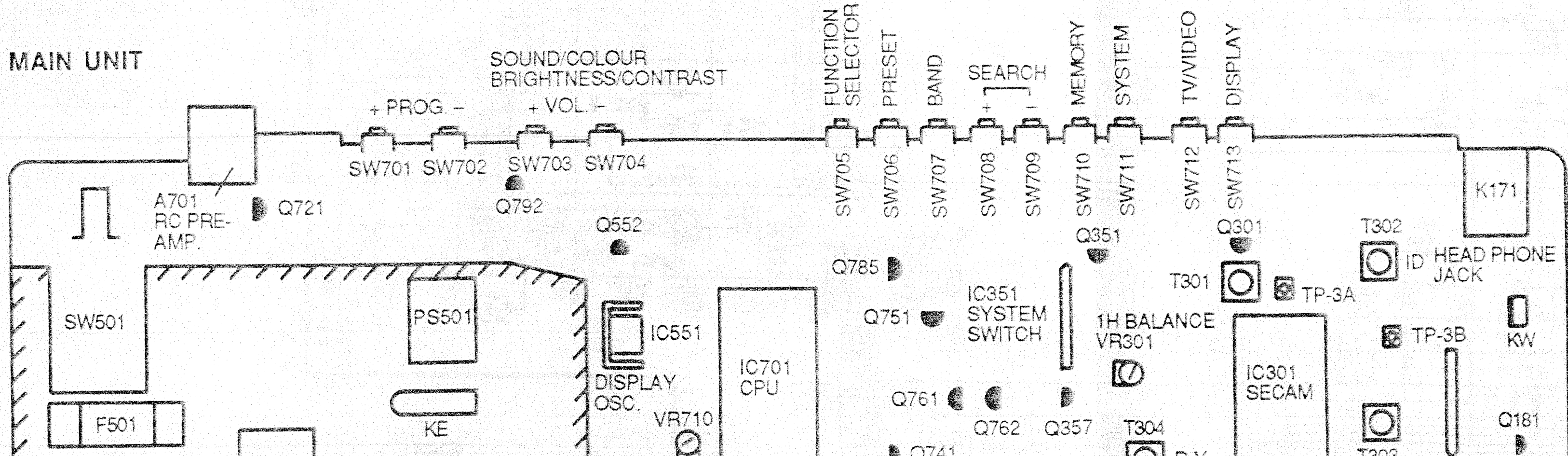
CRT BOARD (CIRCUIT SIDE)



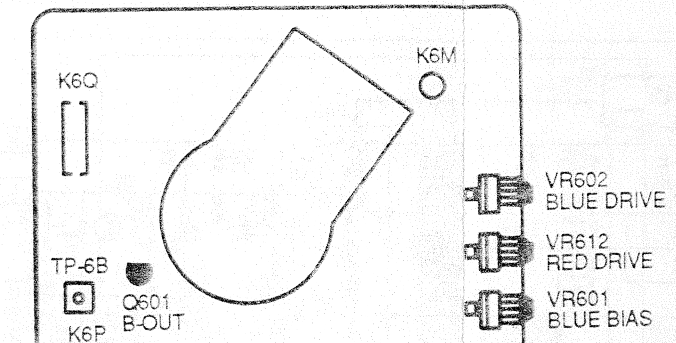
EB3215AXA E2HA

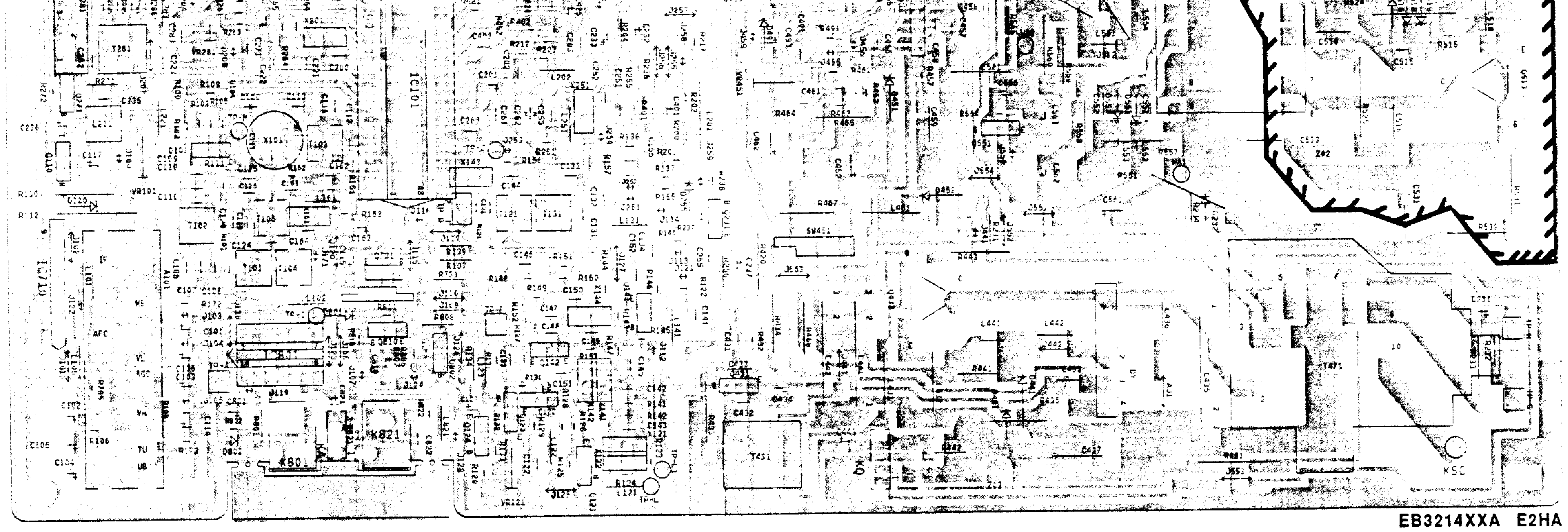
COMPONENT LOCATION

MAIN UNIT


+ PROG. –
SOUND/COLOUR
BRIGHTNESS/CONTRAST
+ VOL. –
FUNCTION SELECTOR
PRESET
BAND
SEARCH
+ –
MEMORY
SYSTEM
TV/VIDEO
DISPLAY
SW701
SW702
SW703
SW704
SW705
SW706
SW707
SW708
SW709
SW710
SW711
SW712
SW713
A701
RC PRE-AMP.
Q721
Q792
Q552
K171
Q785
Q351
Q301
T302
T301
TP-3A
ID
HEAD PHONE JACK
SW501
PS501
IC551
DISPLAY OSC.
IC701
CPU
VR710
Q751
IC351
SYSTEM SWITCH
1H BALANCE
VR301
IC301
SECAM
TP-3B
KW
Q181
F501
KE
Q761
Q762
Q357
T304
Q741
T303

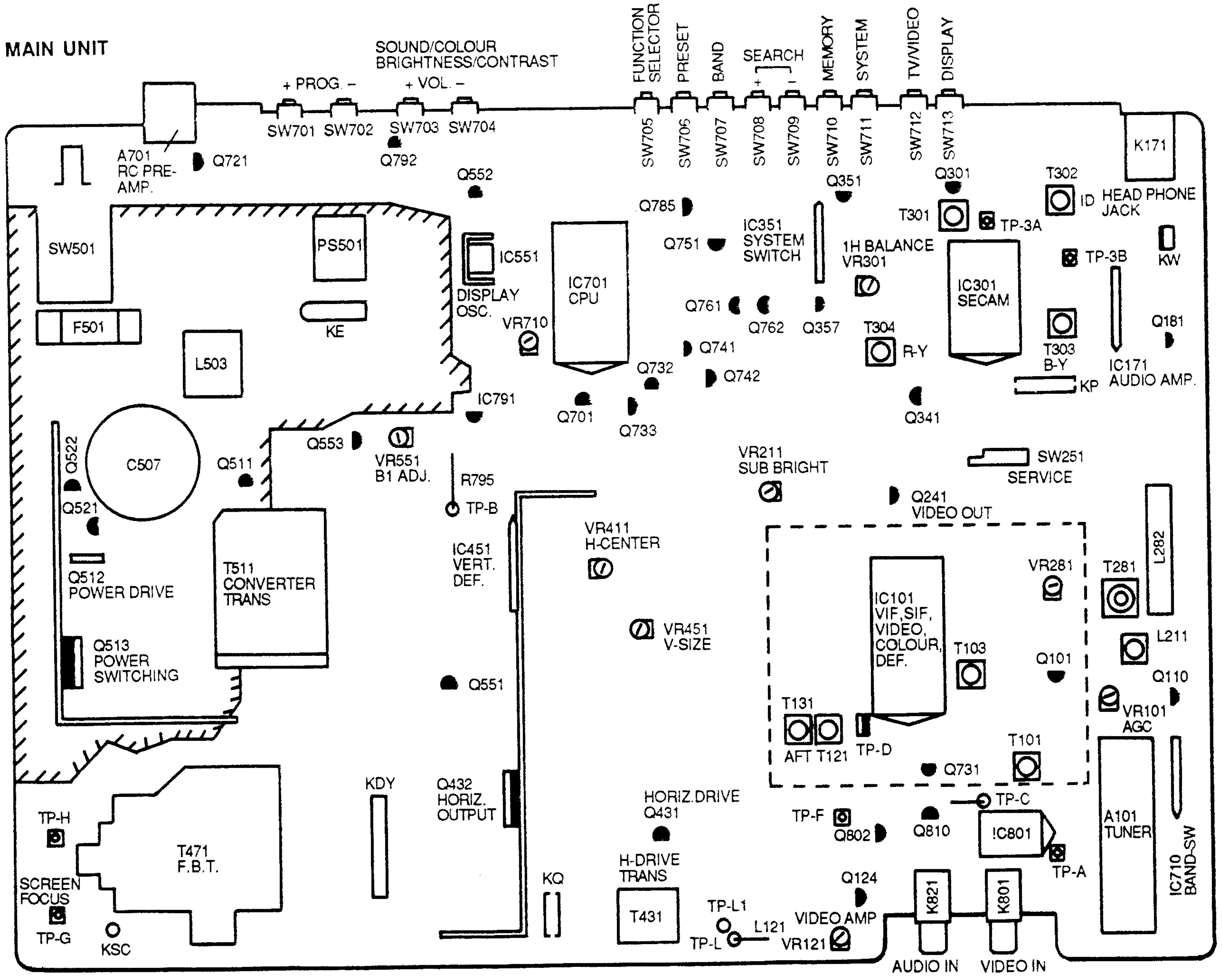
CRT UNIT


K6Q
K6M
VR602
BLUE DRIVE
VR612
RED DRIVE
VR601
BLUE BIAS
TP-6B
Q601
B-OUT
K6P

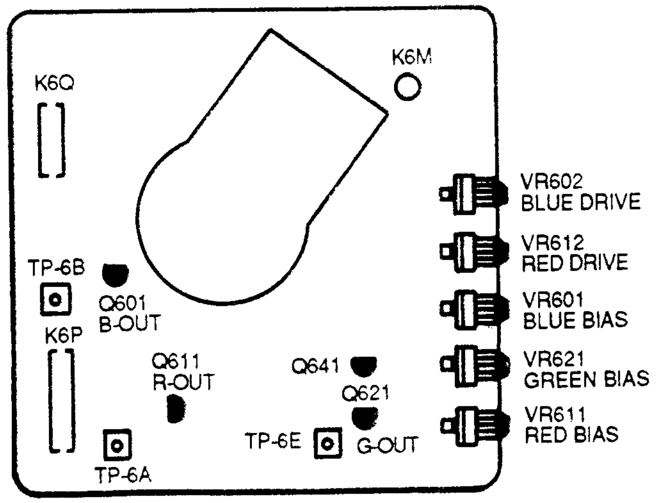

EB3214XXA E2HA
KSC

COMPONENT LOCATION

MAIN UNIT


SOUND/COLOUR
BRIGHTNESS/CONTRAST
+ PROG. –
+ VOL. –
FUNCTION SELECTOR
PRESET
BAND
SEARCH
+ –
MEMORY
SYSTEM
TV/VIDEO
DISPLAY
SW701
SW702
SW703
SW704
SW705
SW706
SW707
SW708
SW709
SW710
SW711
SW712
SW713
A701
RC PRE-AMP.
Q721
Q792
Q552
Q785
Q751
IC351
SYSTEM
SWITCH
Q351
Q301
T302
HEAD PHONE
JACK
K171
T301
TP-3A
ID
1H BALANCE
VR301
TP-3B
KW
SW501
PS501
IC551
DISPLAY
OSC.
IC701
CPU
Q761
Q762
Q357
IC301
SECAM
F501
KE
VR710
T304
R-Y
T303
B-Y
Q181
Q741
IC171
AUDIO AMP.
L503
Q732
Q742
KP
IC791
Q701
Q733
Q341
Q522
C507
Q511
Q553
VR551
B1 ADJ.
R795
TP-B
VR211
SUB BRIGHT
SW251
SERVICE
Q241
VIDEO OUT
Q521
VR411
H-CENTER
IC451
VERT.
DEF.
Q512
POWER DRIVE
T511
CONVERTER
TRANS
VR451
V-SIZE
IC101
VIF,SIF,
VIDEO,
COLOUR,
DEF.
VR281
T281
L282
L211
Q513
POWER
SWITCHING
T103
Q101
Q551
Q110
VR101
AGC
T131
AFT
T121
TP-D
T101
Q731
KDY
Q432
HORIZ.
OUTPUT
HORIZ.DRIVE
Q431
TP-F
Q802
Q810
TP-C
IC801
TP-A
A101
TUNER
IC710
BAND-SW
TP-H
T471
F.B.T.
SCREEN
FOCUS
TP-G
KSC
KQ
H-DRIVE
TRANS
T431
TP-L1
L121
TP-L
Q124
VIDEO AMP
VR121
K821
K801
AUDIO IN
VIDEO IN

CRT UNIT


K6Q
K6M
VR602
BLUE DRIVE
VR612
RED DRIVE
TP-6B
Q601
B-OUT
VR601
BLUE BIAS
K6P
Q611
R-OUT
Q641
Q621
VR621
GREEN BIAS
VR611
RED BIAS
TP-6A
TP-6E
G-OUT

IC701

Function	Pin	Name (volt)	Name (volt)	Pin	Function
ON-SCREEN BLANKING OUTPUT	1	OUT (0.1V)	Vcc (5V)	42	+5 volts Supply
ON-SCREEN (NOT USED) DISPLAY OUTPUT	2	B	OSC2 (0.4V)	41	ON-SCREEN DISPLAY OSCILLATOR(5MHZ)
ON-SCREEN BLANKING OUTPUT	3	G (0.03V)	OSC1 (0.5V)	40	ON-SCREEN DISPLAY OSCILLATOR(5MHZ)
	4	R	Hsync (4.5V)	39	ON-SCREEN DISPLAY(ACTIVE:LOW) HORIZONTAL SYNCHRONISATION PULSE
TV/AV MODE OUTPUT (H:TV L:AV MODE)	5	P4 (5V)	Vsync (5.4V)	38	ON-SCREEN DISPLAY(ACTIVE:LOW) VERTICAL SYNCHRONISATION PULSE
	6	P62 (5.4V)	P21	37	TEXT CONTROL (DATA OUTPUT)
RESET INPUT (ACTIVE:LOW)	7	RESET (5.4V)	P20	36	TEXT CONTROL (CLOCK OUTPUT)
AFT SIGNAL INPUT (NOT USED)	8	P51 (1.5V)	X OUT (2.4V)	35	SYSTEM CLOCK OSCILLATOR (4MHZ)
TIME BASE INPUT	9	P50 (4.4V)	X IN (2.3V)	34	SYSTEM CLOCK OSCILLATOR (4MHZ)
VOLUME CONTROL OUTPUT(ACTIVE:HIGH)	10	VDP0 (0.2V)	P61 (2.9V)	33	SKEW OUT PUT (H:OFF,L:ON)
COLOUR CONTROL OUTPUT(ACTIVE:HIGH)	11	VDP1 (4.7V)	P12 (2V)	32	BAND OUTPUT
BRIGHTNESS CONTROL OUTPUT(ACTIVE:HIGH)	12	VDP2 (4.4V)	P11 (0V)	31	BAND OUTPUT
CONTRAST CONTROL OUTPUT(ACTIVE:HIGH)	13	VDP3 (10.3V)	P10 (5.5V)	30	
REMOTE CONTROL INPUT(ACTIVE:LOW)	14	P53 (5.4V)	P03 (0V)	29	KEY SCAN & SYSTEM CHANGE OUTPUT
OVER LOAD DETECT (L:WRONG)	15	P60 (5.4V)	P02 (0V)	28	KEY SCAN & SYSTEM CHANGE OUTPUT
AFT ON/OFF (H:OFF, L:ON)	16	P70 (0V)	P01 (0V)	27	KEY SCAN OUTPUT (ACTIVE:LOW)
POWER ON/OFF (H:OFF, L:ON)	17	P71 (0V)	P00 (0V)	26	KEY SCAN OUTPUT (ACTIVE:LOW)
	18	P72 (0V)	P33 (5.4V)	25	KEY SCAN INPUT (ACTIVE:LOW)
GND	19	TEST (0V)	P32 (0.6V)	24	KEY SCAN INPUT (ACTIVE:LOW)
TUNING VOLTAGE OUTPUT	20	D/A (4V)	P31 (5.4V)	23	KEY SCAN INPUT (ACTIVE:LOW)
GND	21	Vss (0V)	P30 (5.4V)	22	KEY SCAN INPUT (ACTIVE:LOW)

Q701	VOLT.
B	0V
C	5.4V
E	0V

Q721	VOLT.
B	4.6V
C	5.2V
E	5.3V

Q731	VOLT.
B	0.03V
C	7V
E	0V

Q732	VOLT.
B	0.7V
C	0.06V
E	0V

Q733	VOLT.
B	0.7V
C	0.03V
E	0V

Q741	VOLT.
B	0.15V
C	0.1V
E	0.9V

Q742	VOLT.
B	0.17V
C	12V
E	12V

Q751	VOLT.
B	0.03V
C	7.2V
E	0V

Q785	VOLT.
B	0.5V
C	4.6V
E	0V

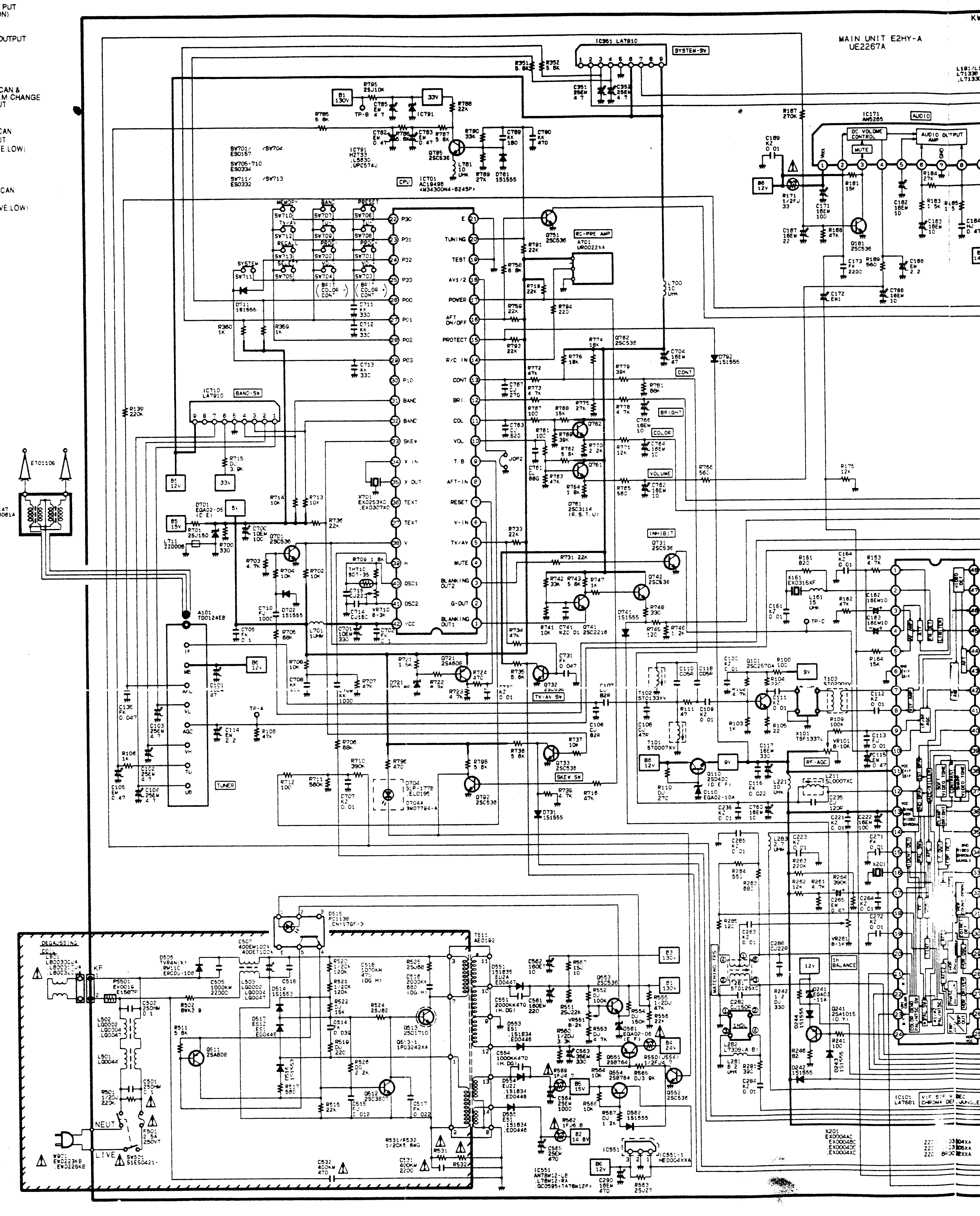
Q792	VOLT.
B	0V
C	11V
E	0V

IC171

Pin	Volt
①	11.5V
②	5V
③	0V
④	0.1V
⑤	7V
⑥	7.4V
⑦	–
⑧	7.5V
⑨	15V

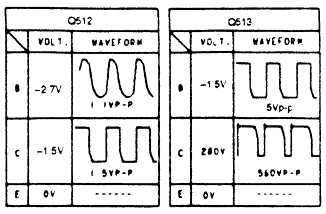
IC710

Pin	⑨	⑧	⑦	⑥	⑤	④	③	②	①
Volt	12V	–	0V	14V	–	0V	2V	12.5V	0V



SERVICE PRECAUTION:
THE AREA ENCLOSED BY THIS LINE ( ) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE. WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK

Q511	VOLT.
B	10V
C	-0.8V
E	10.8V



Q512	VOLT.	WAVEFORM
B	-2.7V	1.1VP-P
C	-1.5V	1.5VP-P
E	0V	------

Q513	VOLT.	WAVEFORM
B	-1.5V	5Vp-p
C	280V	560VP-P
E	0V	------

Q551	VOLT.
B	23.5V
C	24V
E	24V

Q552	VOLT.
B	0.7V
C	0.1V
E	0V

Q553	VOLT.
B	7V
C	40V
E	6.5V

Q110	VOLT.
B	10V
C	12V
E	9V

Q101	VOLT
B	.2V
C	.4V
E	4.2V

SANYO

COLOUR TELEVISION

A3 CHASSIS SERIES

SERVICE REF.NO. **CEP3012PSD-00**

Part No. 4AA6P200067-- E2HYY (A3-A)

PRODUCT SAFETY NOTICE

PRODUCT SAFETY SHOULD BE CONSIDERED WHEN A COMPONENT REPLACEMENT IS MADE IN ANY AREA OF A RECEIVER COMPONENTS INDICATED BY A MARK ⚠ IN THIS CIRCUIT DIAGRAM SHOW COMPONENTS WHOSE VALUE HAVE SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. IT IS PARTICULARLY RECOMMENDED THAT ONLY PARTS SPECIFIED ON THE PARTS LIST OF SERVICE MANUAL BE USED FOR COMPONENTS REPLACEMENT POINTED OUT BY THE MARK

CIRCUIT DIAGRAM NOTES:

1. ALL RESISTANCE VALUES ARE IN OHMS, K = 1,000, M = 1,000,000.
2. ALL RESISTANCE RATED WATTAGES ARE 1/4W UNLESS OTHERWISE NOTED.
3. EXCEPTING ELECTROLYTIC CAPACITORS, ALL CAPACITANCE VALUES OF LESS THAN 1 ARE EXPRESSED IN UF, AND MORE THAN 1 ARE IN PF.
   ELECTROLYTIC CAPACITANCE VALUES ARE IN UF.
4. ALL CAPACITANCE RATED VOLTAGES ARE 50V UNLESS OTHERWISE NOTED.
5. ALL INDUCTANCE VALUES ARE IN UH.
6. VOLTAGE READINGS TAKEN WITH A "VTVM" ARE FROM POINT INDICATED TO CHASSIS GROUND. VOLTAGE READINGS TAKEN BY USING A COLOUR BAR SIGNAL ARE WITH ALL CONTROLS AT NORMAL AND AFC SWITCH IN "OFF" POSITION. SOME VOLTAGES MAY VARY WITH SIGNAL STRENGTH.
7. WAVEFORMS WERE TAKEN WITH COLOUR BAR SIGNAL AND CONTROLS ADJUSTED FOR NORMAL PICTURE. WAVEFORMS WERE TAKEN BY USING A WIDE BAND OSCILLOSCOPE AND A LOW CAPACITY PROBE.
8. VOLTAGE AND WAVEFORM VALUES OF TRANSISTORS IN THE AREA ENCLOSED BY LINE (- - -) ARE MEASURED TO BASE THE ELECTRIC POTENTIAL AT PIN 3 OF T311.
9. THIS CIRCUIT DIAGRAM COVERS A BASIC OR REPRESENTATIVE CHASSIS ONLY. THERE MAY BE SOME COMPONENTS OR PARTIAL CIRCUIT DIFFERENCES BETWEEN THE ACTUAL CHASSIS AND THE CIRCUIT DIAGRAM.
10. EXPRESSION OF CAPACITANCE AND RESISTANCE IN CIRCUIT DIAGRAM.

CAPACITANCE (Example)
1000 C M 2200 D
D — Characteristic
2200 — Capacitance value (2200pF)
M — Allowable error (±20%)
C — Kind (Ceramic)
1000 — Rated voltage (1000V)
J . . .
K . . .
M . . .
T, A, E
C, K, E
F . . .
M, N . . .
Z . . .

RESISTANCE (Example)
1/2 N J 1/2
1/2 — Resistance value (1.2Ω)
J — Allowable error (±5%)
N — Kind (Metalized carbon)
1/2 — Rated Wattage (1/2W)
D . . .
N . . .
S . . .
W . . .
C . . .

Q701	
	VOLT.
B	0V
C	5.4V
E	0V

Q721	
	VOLT.
B	4.6V
C	5.2V
E	5.3V

Q731	
	VOLT.
B	0.03V
C	7V
E	0V

Q732	
	VOLT.
B	0.7V
C	0.06V
E	0V

Q733	
	VOLT.
B	0.7V
C	0.03V
E	0V

Q741	
	VOLT.
B	0.15V
C	0.1V
E	0.9V

Q742	
	VOLT.
B	0.17V
C	12V
E	12V

Q751	
	VOLT.
B	0.03V
C	7.2V
E	0V

Q785	
	VOLT.
B	0.5V
C	4.6V
E	0V

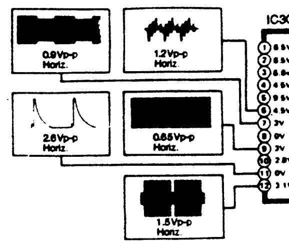
Q792	
	VOLT.
B	0V
C	11V
E	0V

IC171

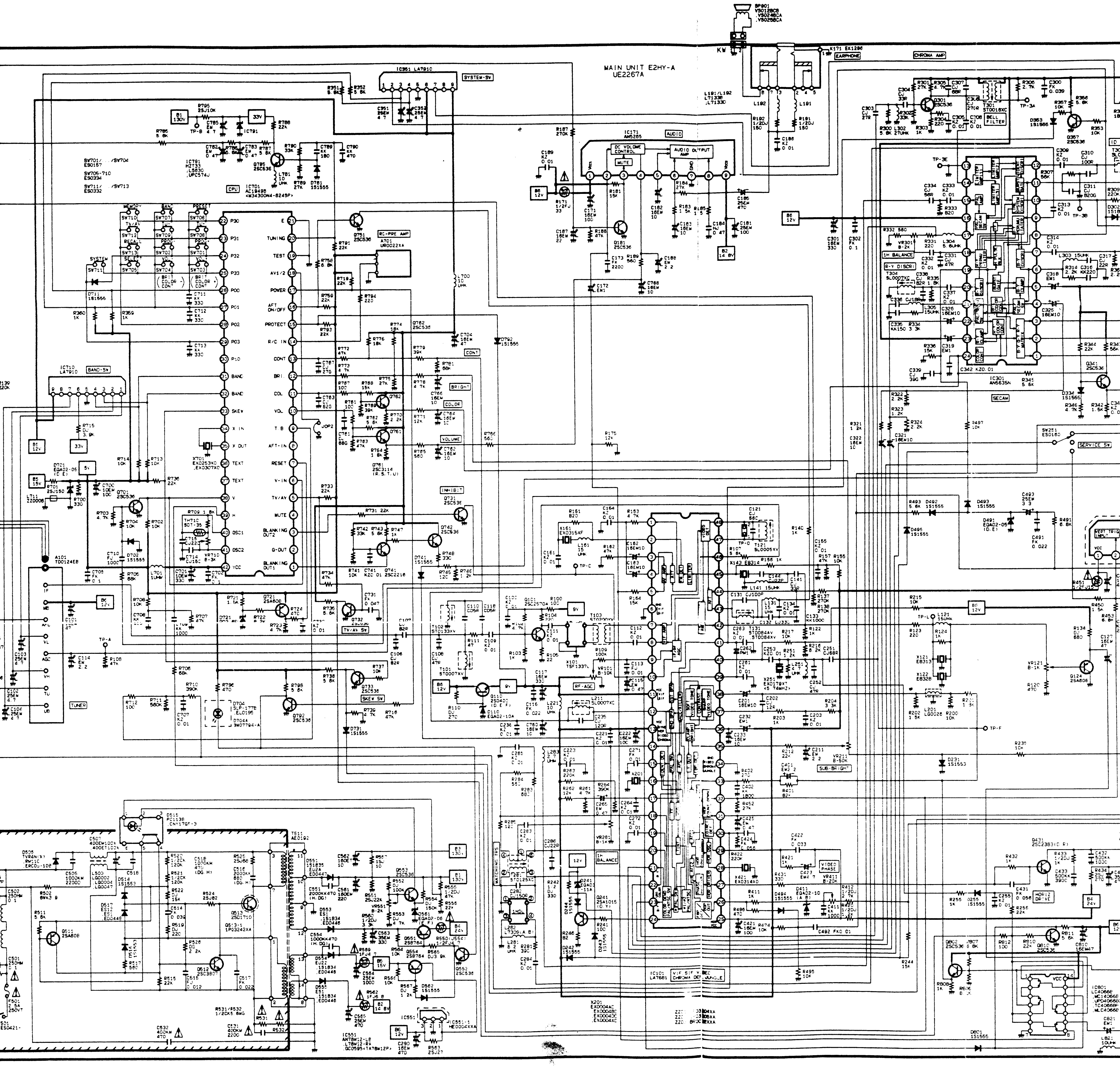
IC171	
①	11.5V
②	5V
③	0V
④	0.1V
⑤	7V
⑥	7.4V
⑦	–
⑧	7.5V
⑨	15V

IC351

①	②	③	④	⑤	⑥	⑦	⑧	⑨
–	1.3V	0.2V	0.3V	–	12V	–0.8V	–	12V



0.9Vp-p Horiz.
1.2Vp-p Horiz.
2.6Vp-p Horiz.
0.65Vp-p Horiz.
1.5Vp-p Horiz.
IC30



SP901 VS0128C8 ,VS0248CA ,VS0258CA
KW
K171 EK1286
EARPHONE
CHROMA AMP
MAIN UNIT E2HY-A
UE2267A
IC951 LA7910
SYSTEM-SW
IC171 AN5265
AUDIO
DC VOLUME CONTROL
MUTE
AUDIO OUTPUT AMP
IC701 AC1949B (M34300M4-6245P)
CPU
IC791 HZ7J3 ,L5630 ,UPC574J
RC-PRE AMP
A701 UR0022XA
SYSTEM
MEMORY
PRESET
BAND
TUNING
TEST
AV1/2
POWER
AFT ON/OFF
PROTECT
R/C IN
CONT
BRI
COL
VOL
T.B
AFT-IN
RESET
V-IN
TV/AV
MUTE
BLANKING OUT2
G-OUT
BLANKING OUT1
VCC
X OUT
X IN
TEXT
OSC1
OSC2
IC710 LA7910
BAND-SW
A101 TD0124EB
TUNER
BRIGHT
COLOR
VOLUME
INHIBIT
SKEW SW
TV/AV SW
CONT
1H BALANCE
R-Y DISCRI
IC301 AN5635N
SECAM
SW251 ES0160
SERVICE SW
RF-AGC
MATCHING TRS
SUB-BRIGHT
VIDEO PHASE
HORIZ DRIVE
IC101 LA7681
V.IF S.IF V.DEC CHROMA DEF JUNGLE
X201 EX0004AC ,EX0004BC ,EX0004CC ,EX0004CC
T511 AE0192
IC551 AN78M12-LB ,LTB12-RX
D515 PC113B CNY17GF-3

Q511	
	VOLT.
B	10V
C	–0.8V
E	10.8V

Q512		
	VOLT.	WAVEFORM
B	–2.7V	1.1VP-P
C	–1.5V	1.5VP-P
E	0V	------

Q513		
	VOLT.	WAVEFORM
B	–1.5V	5Vp-p
C	280V	560VP-P
E	0V	------

Q551	
	VOLT.
B	23.5V
C	24V
E	24V

Q552	
	VOLT.
B	0.7V
C	0.1V
E	0V

Q553	
	VOLT.
B	7V
C	40V
E	6.5V

Q110	
	VOLT.
B	10V
C	12V
E	9V

Q101	
	VOLT.
B	.2V
C	0.4V
E	4.2V

Q124	
	VOLT.
B	2V
C	0V
E	2.8V

Q241		
	VOLT.	WAVEFORM
B	4.6V	8.5VP-P HORIZ
C	1.2V	------
E	5.3V	5.5VP-P HORIZ

Q802	
	VOL
B	6.6
C	12V
E	6V

Q810	
	VOL
B	0.0
C	12.5
E	0V

EVISION

ASSIS SERIES

2PSD-00

PRODUCT SAFETY NOTICE

PRODUCT SAFETY SHOULD BE CONSIDERED WHEN A COMPONENT REPLACEMENT IS MADE IN ANY AREA OF A RECEIVER COMPONENTS INDICATED BY A MARK ⚠ IN THIS CIRCUIT DIAGRAM SHOW COMPONENTS WHOSE VALUE HAVE SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. IT IS PARTICULARLY RECOMMENDED THAT ONLY PARTS SPECIFIED ON THE PARTS LIST OF SERVICE MANUAL BE USED FOR COMPONENTS REPLACEMENT POINTED OUT BY THE MARK

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8. VOLTAGE AND WAVEFORM VALUES OF TRANSISTORS IN THE AREA ENCLOSED BY LINE (– · –) ARE MEASURED TO BASE THE ELECTRIC POTENTIAL AT PIN 3 OF T311.
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10. EXPRESSION OF CAPACITANCE AND RESISTANCE IN CIRCUIT DIAGIAM.

CAPACITANCE (Example)
1000 C M 2200 D
- Characteristic
- Capacitance value (2200pF)
- Allowable error (±20%)
- Kind (Ceramic)
- Rated voltage (1000V)

J .... ±5%
K .... ±10%
M .... ±20%

T, A, E, U, D Electrolytic
C, K, B ..... Ceramic
F .... Mylar film
M, N ..... Polypropylene
Z .... Metalized paper

RESISTANCE (Example)
1/2 N J 1/2
- Resistance value (1.2Ω)
- Allowable error (±5%)
- Kind (Metalized carbon)
- Rated Wattage (1/2W)

D .... Carbon
N .... Metalized carbon
S .... Oxide metalized
W .... Wire wounding
C .... Solid

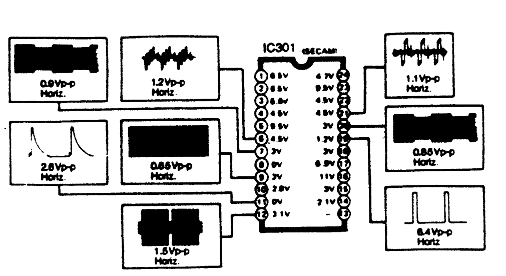
11. DIODE IS1555 MAY BE REPLACED WITH IS2473, IS2076 OR DS442 UNLESS OTHERWISE NOTED.
TRANSISTOR 2SC536 (E, F, G) MAY BE REPLACED WITH 2SC1740S (Q, R, S), 2SC1740 (Q, R, S), 2SC945A (Q, R, P) OR 2SC1815 (G, O, Y) UNLESS OTHERWISE NOTED.
TRANSISTOR 2SA608 (E, F) MAY BE REPLACED WITH 2SA933 (Q, R), 2SA564 (QA, RA) OR 2SA1015 (O, Y) UNLESS OTHERWISE NOTED.

IC171

Pin	Volt
①	11.5V
②	5V
③	0V
④	0.1V
⑤	7V
⑥	7.4V
⑦	–
⑧	7.5V
⑨	15V

IC351

①	②	③	④	⑤	⑥	⑦	⑧	⑨
–	1.3V	0.2V	0.3V	–	12V	–0.8V	–	12V


IC301 (SECAM)
0.9Vp-p Horiz.
1.2Vp-p Horiz.
2.8Vp-p Horiz.
0.85Vp-p Horiz.
1.5Vp-p Horiz.
1.1Vp-p Horiz.
0.85Vp-p Horiz.
6.4Vp-p Horiz

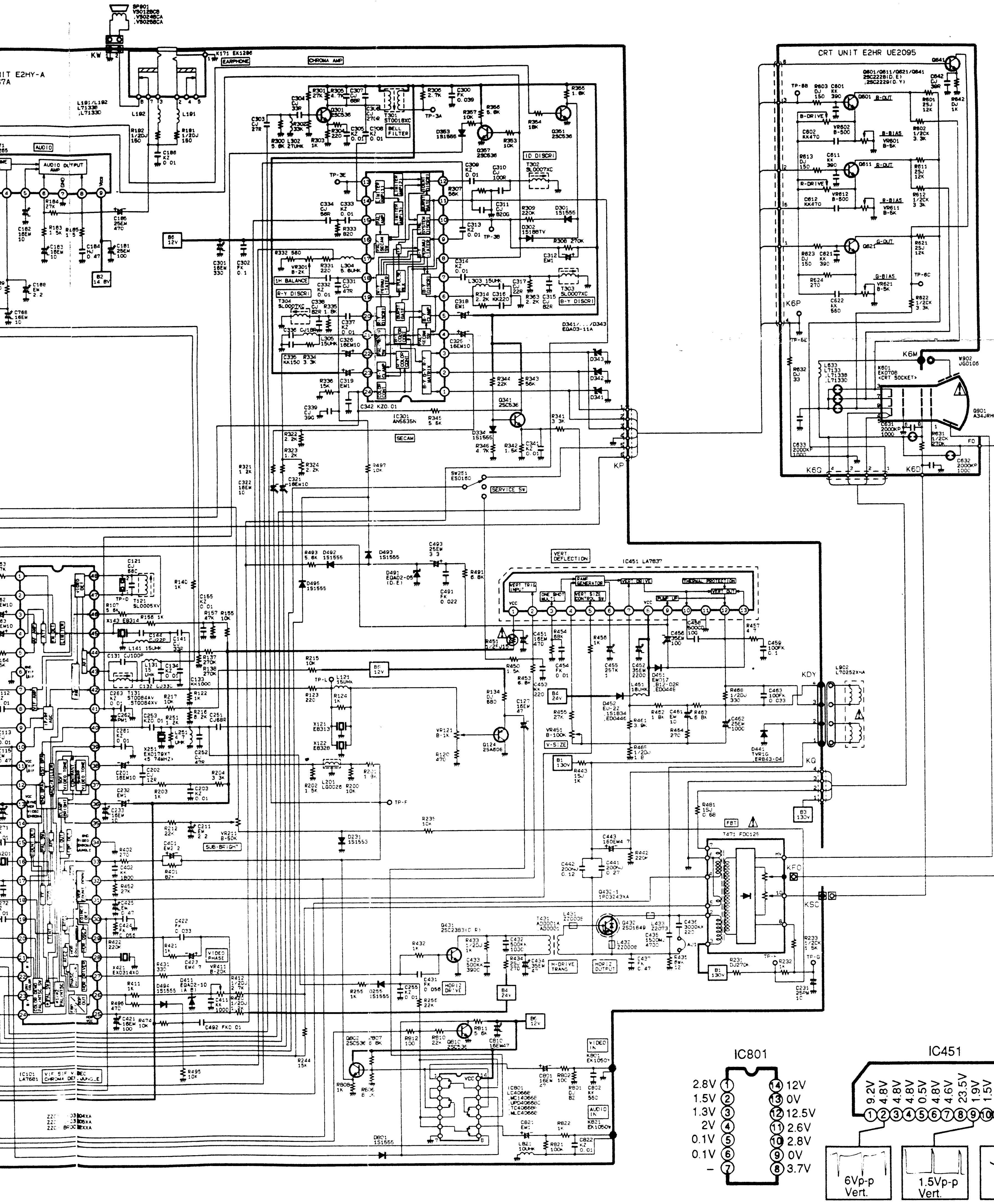
Q301	
	VOLT.
B	6V
C	12V
E	5.5V

Q341	
	VOLT.
B	2.6V
C	6.5V
E	2.2V

Q351	
	VOLT.
B	–0.7V
C	12V
E	0V

Q357	
	VOLT.
B	0.7V
C	0.08V
E	0V

Q641	
	VOLT.
B	0V
C	97V
E	0V


SP901 VS0128C8 ;VS0248CA ;VS0258CA
KW
K171 EK1286
EARPHONE
CHROMA AMP
AUDIO OUTPUT AMP
AUDIO
L191/L192 L7133B ;L7133D
B5 12V
B2 14.8V
1H BALANCE
R-Y DISCRI
B-Y DISCRI
ID DISCRI
BELL FILTER
IC301 AN5635N
SECAM
D341/.../D343 EQA03-11A
SERVICE SW
SW251 ES0160
KP
CRT UNIT E2HR UE2095
Q601/Q611/Q621/Q641 2SC2228(D,E) ;2SC2229(O,Y)
B-DRIVE
R-DRIVE
B-OUT
R-OUT
G-OUT
B-BIAS
R-BIAS
G-BIAS
K6P
K6M
K6Q
K6D
V902 VG0106
K601 EKD708 <CRT SOCKET>
Q901 A34JRH61X
FO
VERT DEFLECTION
IC451 LA7837
VERT TRIG INPUT
ONE SHOT MULTI
RAMP GENERATOR
VERT DRIVE
THERMAL PROTECTION
VERT SIZE CONTROL SW
PUMP UP
VERT OUT
V-SIZE
B1 130V
B3 130V
B4 24V
B6 12V
KDY
L902 LT0252XA
KG
FBT
T471 FDC125
KFC
KSC
H-DRIVE TRANS
HORIZ OUTPUT
HORIZ DRIVE
VIDEO PHASE
SUB-BRIGHT
IC101 LA7681 VIF SIF VIDEO CHROMA DEF JUNGLE
VIDEO IN K801 EK1050V
AUDIO IN K821 EK1050V
IC801 LC4066B ;MC14066B ;UPD4066BC ;TC4066BP ;MLC4066B
D801 1S1555

IC801

Pin	Volt	Pin	Volt
①	2.8V	⑭	12V
②	1.5V	⑬	0V
③	1.3V	⑫	12.5V
④	2V	⑪	2.6V
⑤	0.1V	⑩	2.8V
⑥	0.1V	⑨	0V
⑦	–	⑧	3.7V

IC451

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬
9.2V	4.8V	4.8V	4.8V	0.5V	4.8V	4.6V	23.5V	1.9V	1.5V	–	15V	24V

6Vp-p Vert.

1.5Vp-p Vert.

43Vp-p Vert.

IC101

Pin	Volt	Pin	Volt
①	3.6V	㊽	5V
②	6V	㊼	5V
③	4.6V	㊻	4V
④	5.8V	㊺	5V
⑤	4V	㊹	5.4V
⑥	–	㊸	7.2V
⑦	4.8V	㊷	3.5V
⑧	4.8V	㊶	6.2V
⑨	6V	㊵	4.8V
⑩	7V	㊴	5.6V
⑪	9.3V	㊳	1.8V
⑫	6.7V	㊲	8.6V
⑬	9.2V	㊱	2.8V
⑭	5.7V	㉟	4.4V
⑮	7V	㉞	–
⑯	5.8V	㉝	7V
⑰	6.2V	㉜	4.8V
⑱	3.4V	㉛	0.4V
⑲	4.8V	㉚	7.4V
⑳	3.5V	㉙	5.8V
㉑	5.5V	㉘	5.2V
㉒	5.5V	㉗	0.8V
㉓	5.5V	㉖	0.6V
㉔	4.5V	㉕	7.7V

Q601		
	VOLT.	WAVEFORM
B	6.6V	4.2VP-P HORIZ
C	94V	100VP-P HORIZ
E	6.4V	-----

Q611		
	VOLT.	WAVEFORM
B	6.6V	4.2VP-P HORIZ
C	98V	100VP-P HORIZ.
E	6.4V	-----

Q621		
	VOLT.	WAVEFORM
B	6.6V	3.7VP-P HORIZ
C	97V	95VP-P HORIZ.
E	6.4V	-----

Q110	
	VOLT.
	10V
	12V
	9V

Q101	
	VOLT.
B	.2V
C	0.4V
E	4.2V

Q124	
	VOLT.
B	2V
C	0V
E	2.8V

Q241		
	VOLT.	WAVEFORM
B	4.6V	8.5VP-P HORIZ
C	1.2V	------
E	6.3V	5.5VP-P HORIZ

Q802	
	VOLT.
B	6.6V
C	12V
E	6V

Q810	
	VOLT.
B	0.06V
C	12.5V
E	0V

Q431		
	VOLT	WAVEFORM
B	0.08V	2.1VP-P HORIZ
C	19V	40VP-P HORIZ.
E	0V	------

Q432		
	VOLT	WAVEFORM
B	2.3V	1.4VP-P HORIZ
C	80V	1000VP-P HORIZ
E	2.4V	1.2VP-P HORIZ

SISTANCE IN CIRCUIT DIAGIAM

teristic ┌J . . . . ±5%
tance value (2200pF) ├K . . . . ±10%
ble error (±20%)– ┬ – –└M . . . . ±20%

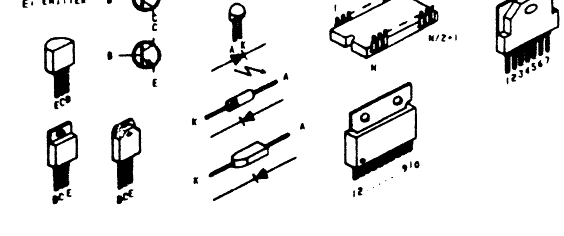
Ceramic)– – – – ┼ – – ┐T, A, E, U, D Electrolytic
voltage (1000V) └C, K, B . . . . Ceramic
┌F . . . . Mylar film
├M, N . . . . . Polypropylene
└Z . . . . Metalized paper

ance value (1.2Ω)
ble error (±5%)– – ┘

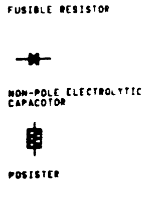
Metalized carbon)– – – ┐D . . . . Carbon
Wattage (1/2W) ├N . . . . Metalized carbon
┌S . . . . Oxide metalized
├W . . . . Wire wounding
└C . . . . Solid

11. DIODE IS1555 MAY BE REPLACED WITH IS2473, IS2076 OR DS442 UNLESS OTHERWISE NOTED.
TRANSISTOR 2SC536 (E, F, G) MAY BE REPLACED WITH 2SC1740S (Q, R, S), 2SC1740 (Q, R, S), 2SC945A (Q, R, P) OR 2SC1815 (G, O, Y) UNLESS OTHERWISE NOTED.
TRANSISTOR 2SA608 (E, F) MAY BE REPLACED WITH 2SA933 (Q, R), 2SA564 (QA, RA) OR 2SA1015 (O, Y) UNLESS OTHERWISE NOTED.

TRANSISTOR, DIODE & INTEGRATED CIRCUIT TERMINAL GUIDE


C: COLLECTOR
B: BASE
E: EMITTER
A: ANODE
K: CATHODE
E
B
C
ECB
BCE
A
K
1
N/2
N/2+1
N
1 2 ...... 9 10
1 2 3 4 5 6 7

PARTICULAR PARTS SYMBOL


FUSIBLE RESISTOR
NON-POLE ELECTROLYTIC CAPACOTOR
POSISTER